Reef Angel Uapp

V3.0.3

Copyright 2024 – Reef Angel

All Rights Reserved

Contents

What's New in version 3.0.3?

Version 3.0.3 brings a lot of new features and enhancements. Below is a list of anything that is new or changed.

- Controller Logs
  - Controller logs are now available to see alert logs, IO Logs and Relay logs for the last 30 days.
- HTTPS Support for non-cloud users
  - Non cloud users can now use full https for the Uapp which enables the app to be installable, push notifications and better security.
- App shortcuts
  - Long touch of the app icon which shows shortcuts for feeding mode, water change mode, Lights on, and exit mode.
- Uapp is now installable.
  - Now the ability to install the Uapp on Windows and android devices.
- Relay Graphs Updated.
  - Relay graphs are now improved.
- Calibration from Uapp
  - You can now calibrate from the Uapp.
  - *Note: only available for Reef Controller Star.*
- Updated User Alerts
  - Push notifications now available, ability to edit alerts, and set alert interval.
- Small UI enhancements

Introduction

The Reef Angel Uapp serves as your digital gateway to the Reef Angel Controller, providing a sophisticated and user-friendly online interface for seamless interaction with your aquatic environment. With its customizable alert system, you will receive timely notifications, ensuring you can respond quickly to any changes in your aquarium's conditions. Additionally, the Uapp's remote-control capabilities offer the convenience of managing your aquatic settings from anywhere, at any time. Designed for compatibility, the web application integrates smoothly with both Android and Apple devices and any online browser, allowing for easy addition to your home screen for quick access. This seamless integration ensures that monitoring and controlling the parameters of your Reef Angel Controller is always just a tap away, merging technology with the tranquility of aquatic care.

Installing the app

Now, you have the convenience of installing Reef Angel Uapp directly as an application, rather than relying on a URL link. If you're using a Windows PC or an Android device, simply navigate to forum.reefangel.com/uapp. There, you'll find a prompt to install the Uapp. Just click 'install,' and the Uapp will be seamlessly installed onto your device.

For iOS users, the process is slightly different. Navigate to forum.reefangel.com/uapp, then access the settings and click 'add to home screen' to integrate Uapp into your device.
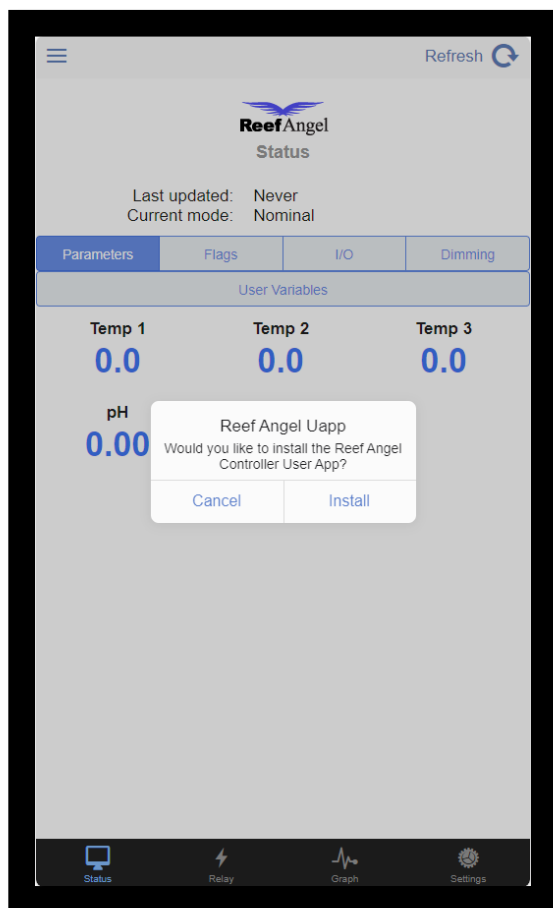

Side Menu

In the side menu you can enable your different modes, clear your status flags, reboot your controller, sync your saved labels and more.

- **Edit Dashboard:** You can now check different parameters, IO ports, and Dimming ports to hide them from being visible on the dashboard.

- **Modes:** This button allows you to enter in feeding mode, Water Change mode, lights on mode, exit mode, and lights cancel.
- **Clear Status:** you can clear your flags that have been set. These include ATO, Overheat, and Leak
- **Calibrate:** This is where you can calibrate your expansions, and Ph, salinity and orp probes. This feature is not currently available but is coming soon.
- **Sync Saved Labels:** will sync the Uapp with your labels you have saved in the Database.
- **Sync RA Time:** This will sync the current device time to the Reef Angel controller.
- **Get RA Time:** Displays the current time set on your Reef Angel controller.
- **Get RA Version:** Displays the current software version of your Reef Angel controller.
- **Get Forum Username:** displays the forum username set in the controller.
- **Reboot Controller:** This will reboot your Reef Angel Controller.
- **Toggle Dark Theme:** This enables Dark Theme on the Uapp.
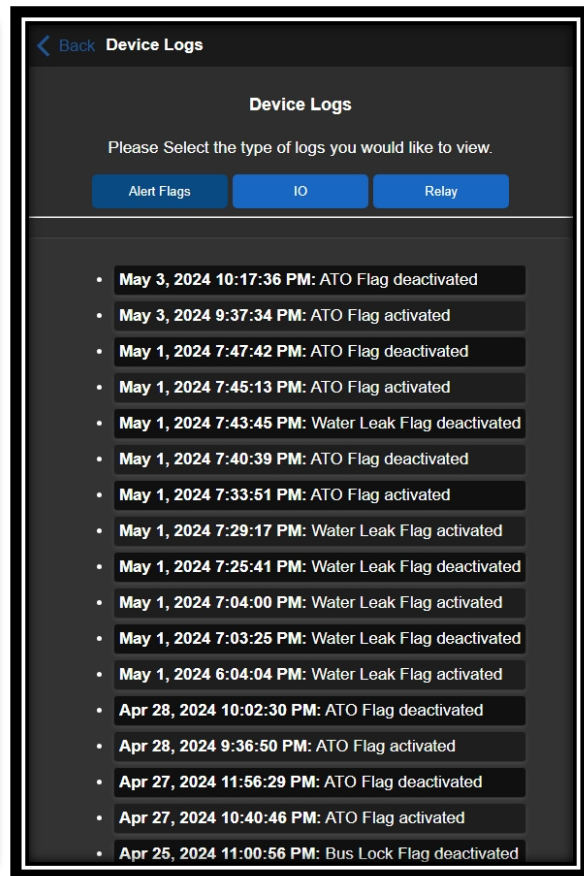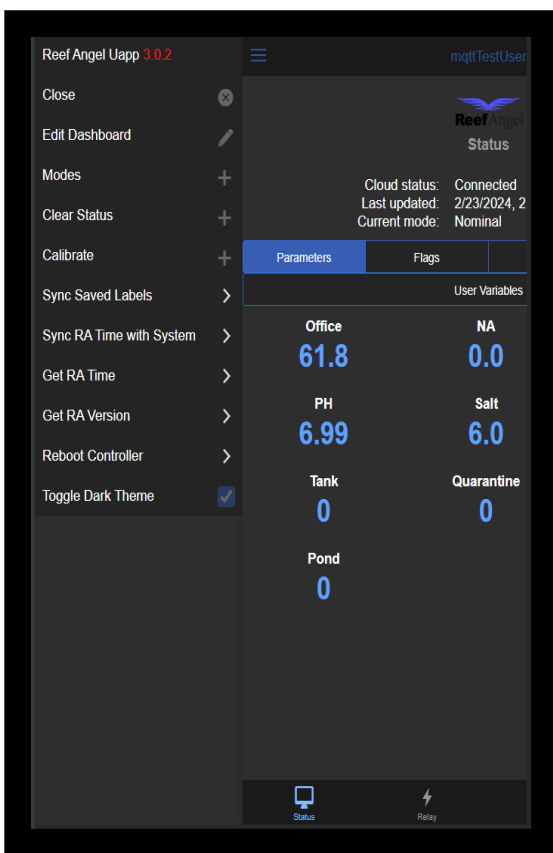
Status Page

The Status Menu will display all your parameters, show your flags, IO, Dimming, RF, Custom Variables, and DC Pump,
Not all pages will be shown if you don't have the module enabled in your reef angel code.

Parameters

All your parameters are displayed on the Parameters tab. These appear as you add them to your

controller. You have the option to modify the label for each parameter and access its historical data.

For users managing multiple controllers, refer to the image below to select the specific controller whose information you want to view.

To access the historical data of a parameter, simply click on the parameter of interest. This action generates a graph showing its historical data. Please note that data is stored for a maximum of 30 days. You can adjust the amount of data displayed on the graph by selecting the desired time frame next to the 'Zoom' label. The controller updates the server with new data every 5 minutes, which is then recorded in the database. This frequency explains the 5-minute intervals between each data point.

Panel 1 (Example 2)
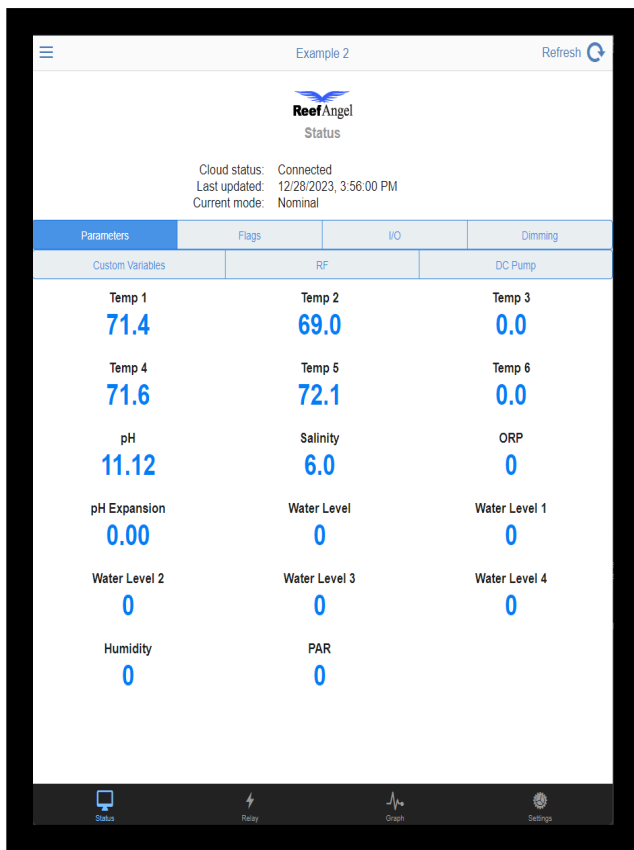
Example

Example 2

Cloud status: Connected
Last updated: 12/28/2023, 3:56:30 PM
Current mode: Nominal

Parameters	Flags	I/O	Dimming
Custom Variables		RF	DC Pump

Temp 1	Temp 2	Temp 3
71.4	**69.0**	**0.0**

Temp 4	Temp 5	Temp 6
71.4	**71.9**	**0.0**

pH	Salinity	ORP
11.13	**6.0**	**0**

pH Expansion	Water Level	Water Level 1
0.00	**0**	**0**

Water Level 2	Water Level 3	Water Level 4
0	**0**	**0**

Humidity	PAR
0	**0**

Status   Relay   Graph   Settings

Panel 2 (Example)

ReefAngel
Status

Cloud status: Connected
Last updated: 12/28/2023, 3:34:08 PM
Current mode: Nominal

Parameters	Flags	I/O	Dimming
Custom Variables		DC Pump	

Room	Sump	Tank
68.0	**77.9**	**78.4**

pH	Sal	ORP
6.31	**33.5**	**458**

ATO	-	-
61	**0**	**0**

-	-
0	**0**

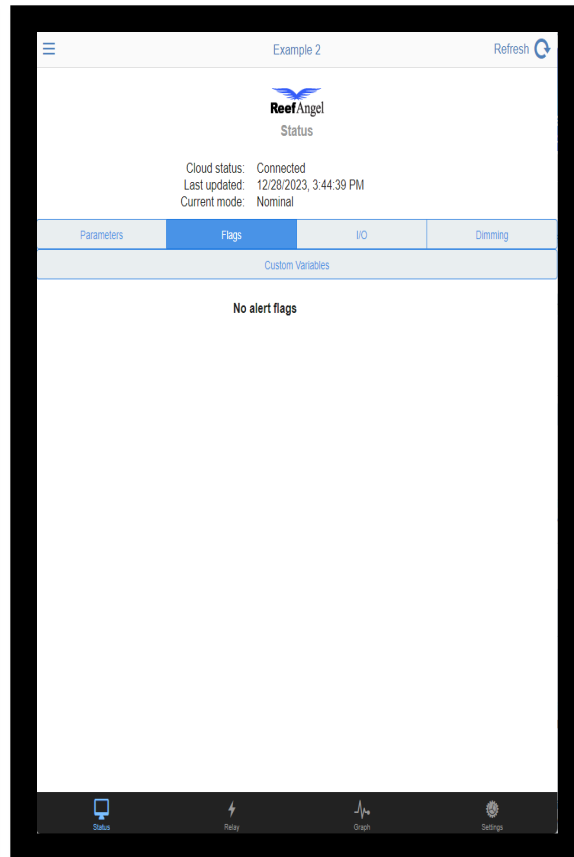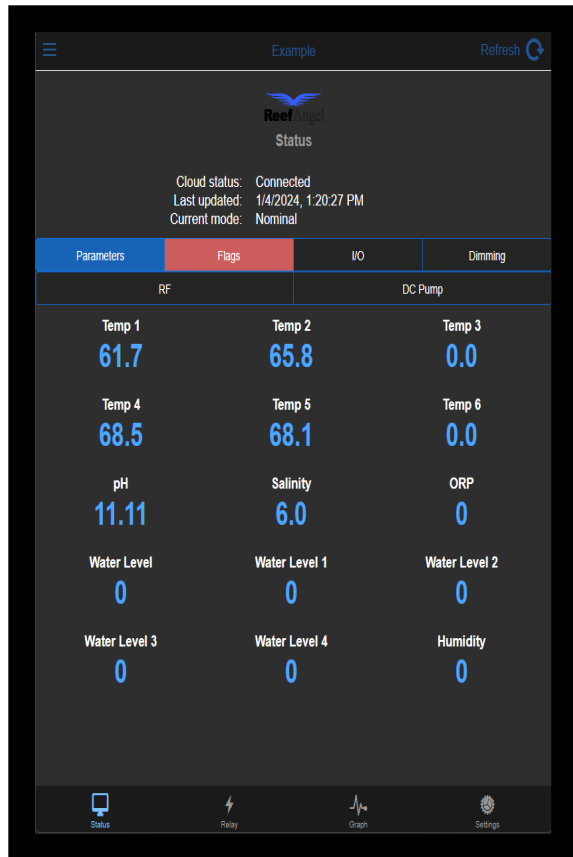Status   Relay   Graph   Settings

Flags

The Flags page is where you will see if any flags have been set. When a flag has been set the bar will be Red indicating a there is a flag. You will see the flag icon, and the text of what the flag is.

Example of flags
- Ato Timeout
- Leak Detected
- Overheat
- Bus Lock
- Lights On

I/O

The I/O section displays the status of your input/output ports, and it will also indicate if you have an I/O expansion module installed. The status of each port is represented by color-coded icons: red or green, depending on the value of the IO port.

- A value of 0 is represented by a red icon, indicating that there is no loop created.
- A value of 1 is shown with a green icon, signifying an active loop.

The specific color coding depends on how you have connected your float switches or any other devices to these ports.

The labels for each IO port can also be changed in the settings.

Dimming

The Dimming Page displays all the dimming channels you have activated. On this page, you can view each individual channel's current settings. Additionally, you have the option to manually set a specific value for each channel. When a channel's value is set by you, it will be highlighted to clearly indicate user-defined settings.

For customizing channel names, you can do so on the 'Label Settings' page.
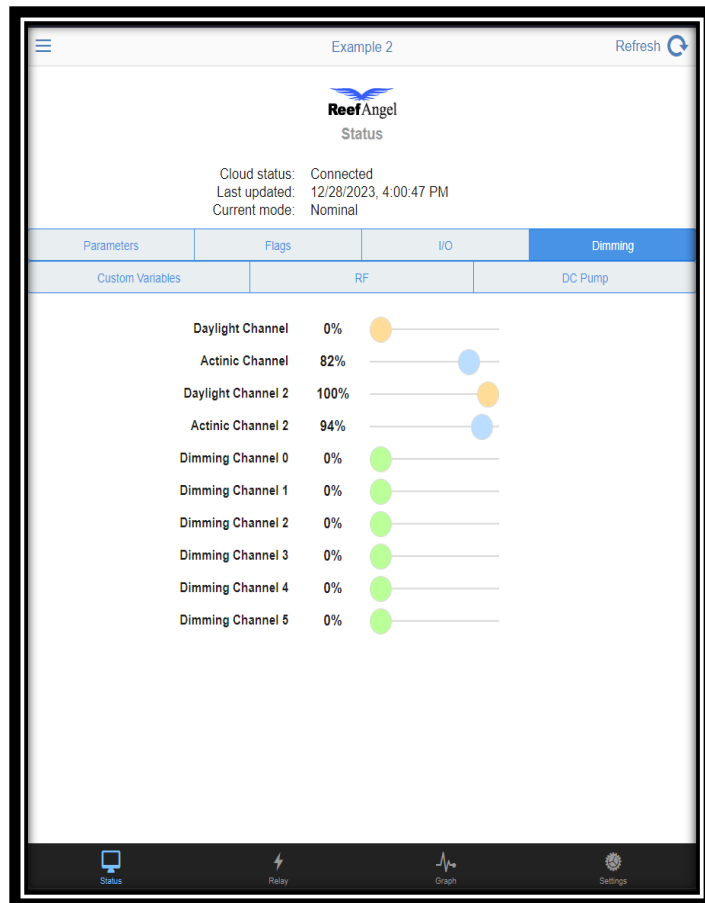
User Variables

User Variables empowers you to monitor up to 8 distinct parameters. These variables can encompass both numerical values and text. When you opt to update a User Variable, you'll encounter a text input field where you can input a value of up to 50 characters. Additionally, you'll find two checkboxes: one to add the event to your calendar, enabling you to keep track of when the User Variable was updated, and another to display the User Variable on the parameters page. Each User Variable can be customized with a name of your choice, accessible under 'Settings' and then by navigating to the 'Labels' tab.

Within the User Variables section, you'll find a versatile calendar feature designed to manage various aquarium-related tasks and events. However, its adaptability extends to a wide array of activities, such as water changes, introducing new fish or coral, or reminders for equipment or chemical purchases. Creating a task or event is simple: just click or tap on the desired day, then provide a name, description, and set a specific time. For tasks spanning the entire day, you can conveniently set the time to 12:00 AM. Options for scheduling recurring tasks include daily, monthly, or yearly frequencies. Additionally, you can choose to receive email reminders, ensuring you're notified one hour prior to the scheduled task time.
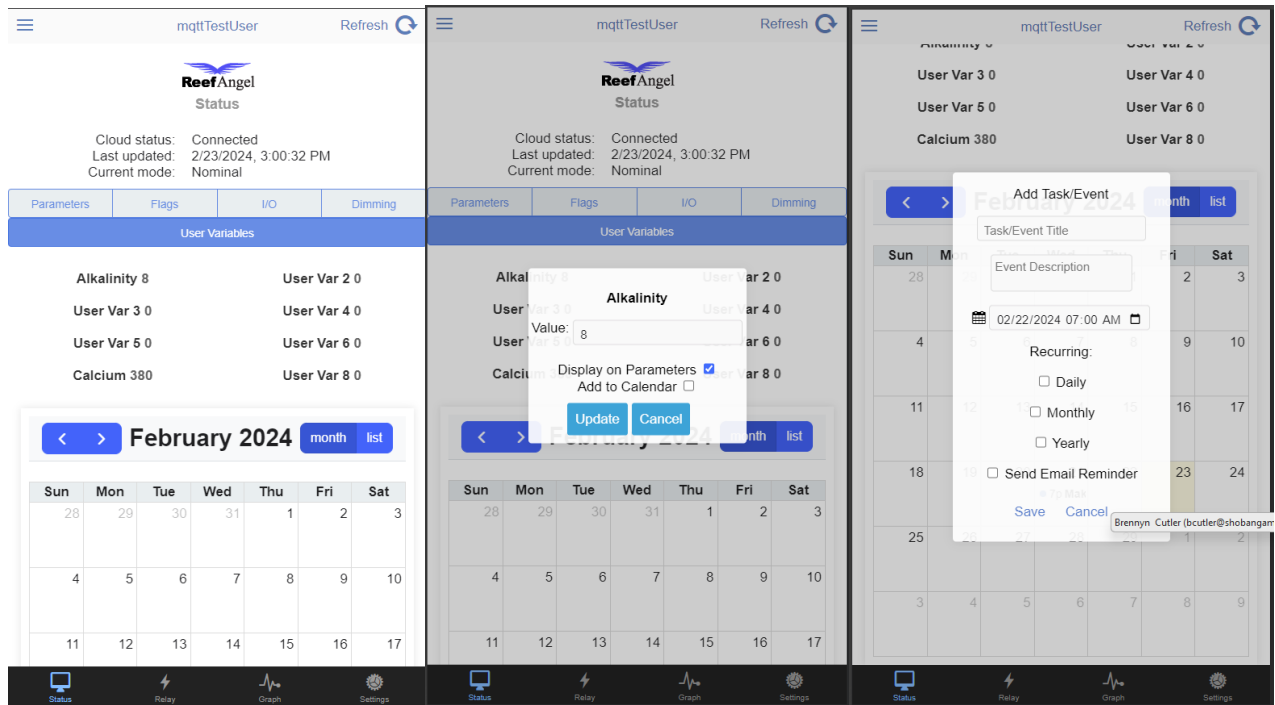
Custom Variables

The custom variables page is exactly as it sounds, it displays the custom variables set in your code. These values can be updated by clicking on the custom variable that you want to update and entering your value.
Labels can be set for each Custom Variable.
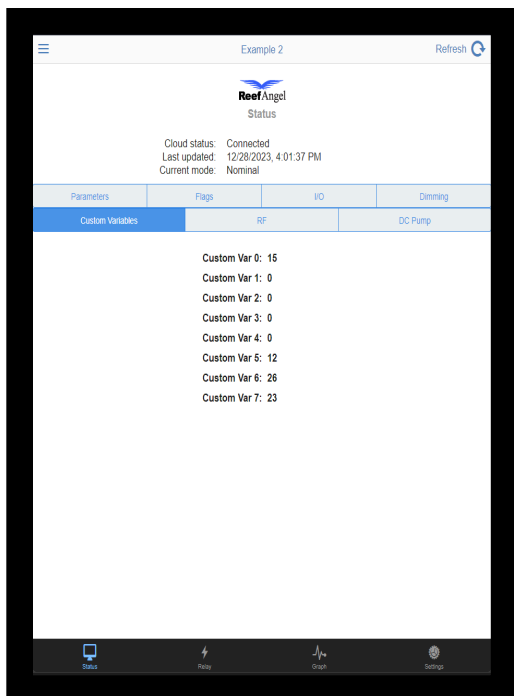
RF
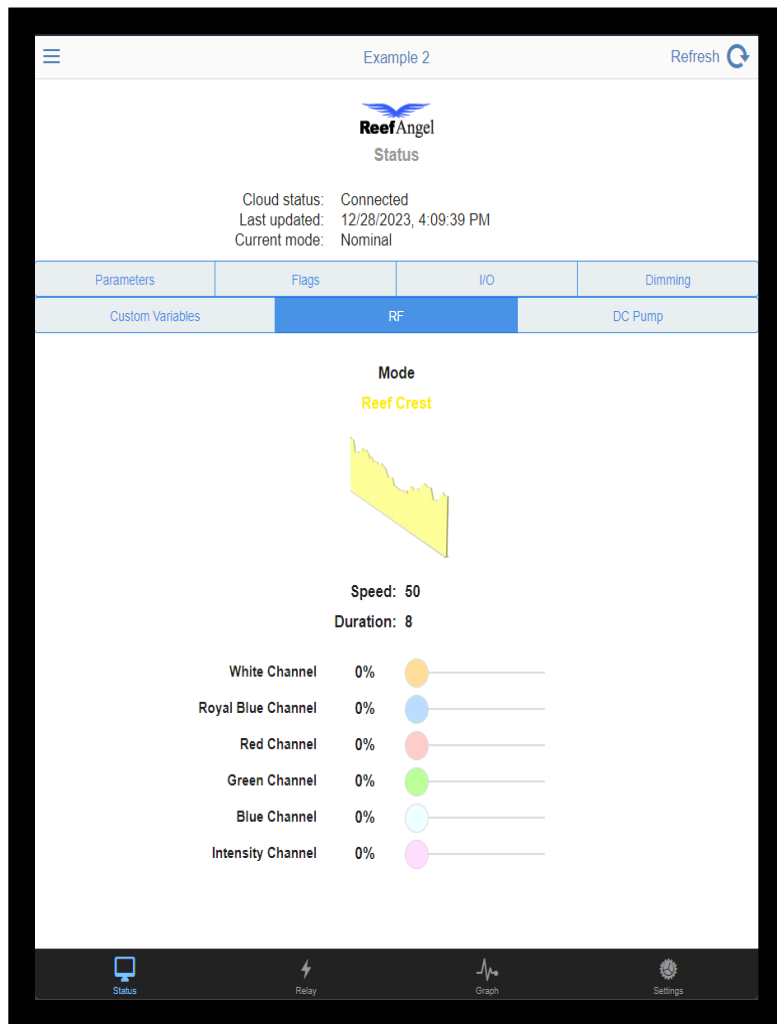
The RF Page will be displayed if you have the RF module enabled.

In this page you can choose your wave pattern duration, and speed.

You can also control your Radion XR LED fixture

DC Pump

The DC pump is very similar to the RF as you can select your mode, duration and speed. This will then set whatever channel or channels you have activated for the DC Pump to that mode and duration.
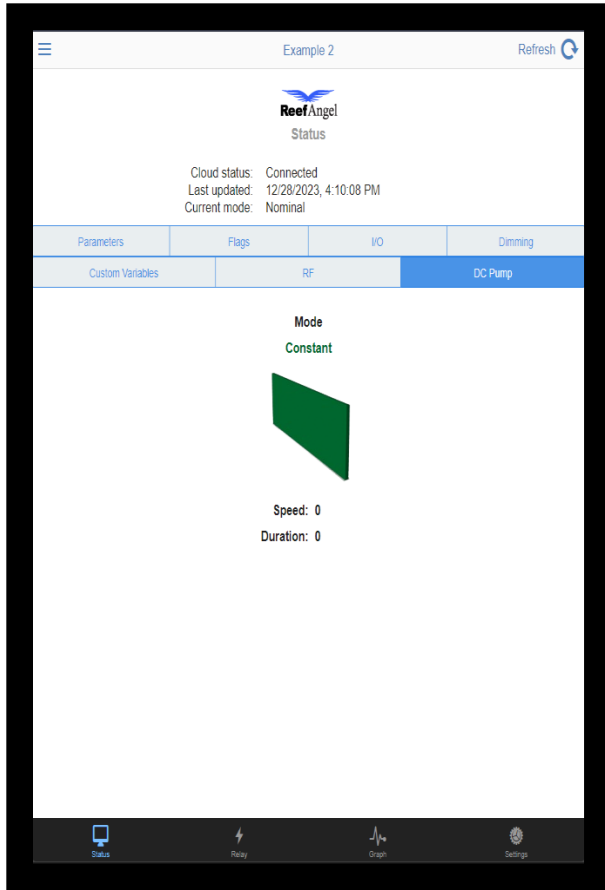
Relay Page

The Relay page is where you will see your relay boxes. Each port can be turned on, off, or left in auto mode where the controller controls the port. Each port will be colored green for on, or red for off.

You can click the Header label to view the graph for each relay box relay port activity.

All the ports labels can be changed in the settings.

Graphs Page

The Graphs Page allows you to create graphs for multiple parameters simultaneously. This page displays all the parameters that you have enabled for graphing. You also have the option to add custom parameter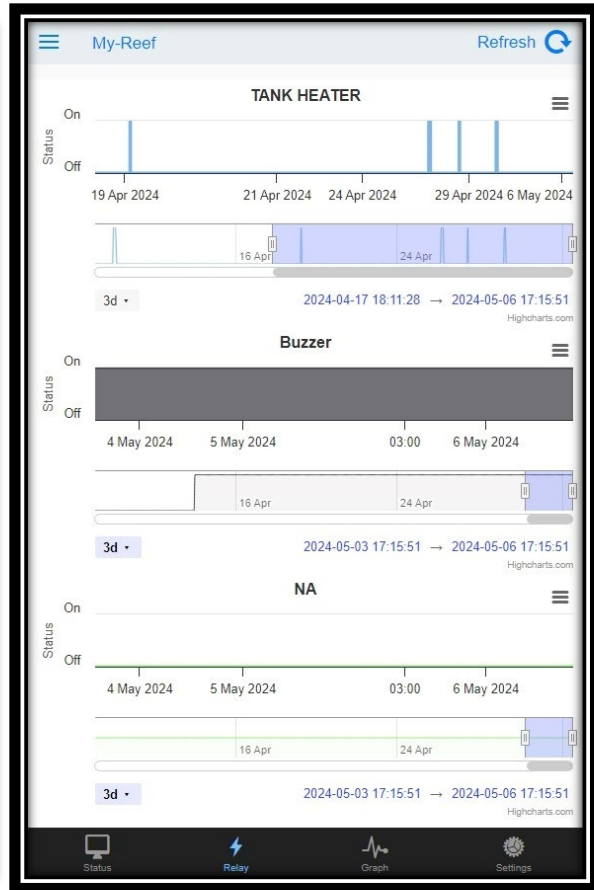s to your graphs, such as IO ports, relays, dimming channels, and more. A comprehensive list of items that can be graphed is provided below. Please note that these items must be activated on your controller to be graphed.

When entering custom values, ensure that they are separated by commas.
- Actinic Diming: PWMA
- Daylight Dimming: PWMD
- Actinic 2 Dimming: PWMA2
- Daylight 2 Dimming: PWMD2
- Dimimng Expansion: PWME0 - PWME5
- Ato High Port: ATOHIGH
- ATO Low Port: ATOLOW
- ALARM PORT: ALARM
- Leak: Leak
- Custom Variables: c0 - c7
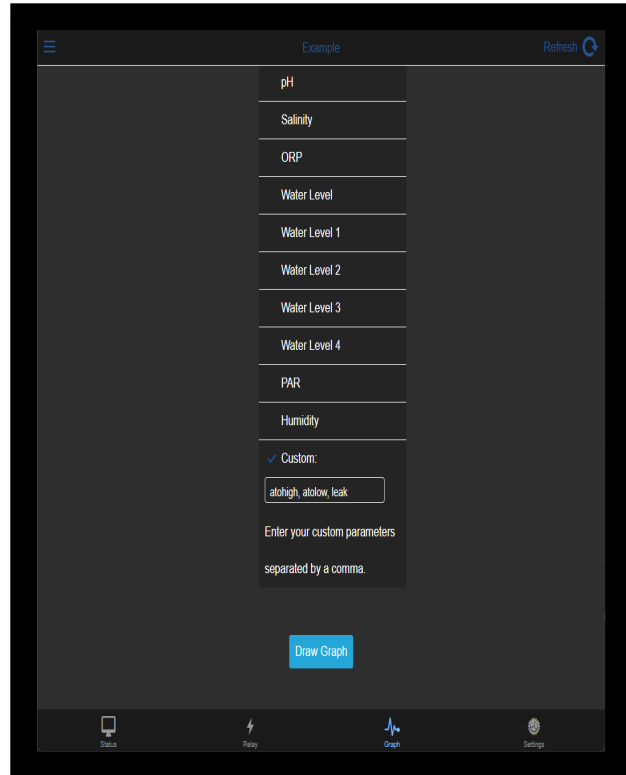
Settings

The settings page is where you can add your controllers, set your label names, update your internal memory settings, and set your email alerts.

Adding a controller

To add a controller, simply click the 'Add Controller' button, which will direct you to a login screen. Enter your forum username and password associated with your Reef Angel. If you have a Reef Angel Star or Cloud Wifi Attachment, you'll notice a checkbox for cloud login—check this option accordingly.

The Public IP and Port are now dynamically retrieved, eliminating the need for manual input of your public IP and port information.

Once logged in, your controller will be displayed under the controller page. For users with an RA Plus and the older Wifi attachment, the 'Refresh' button will automatically retrieve the latest public IP for your controller and reauthenticate the user.
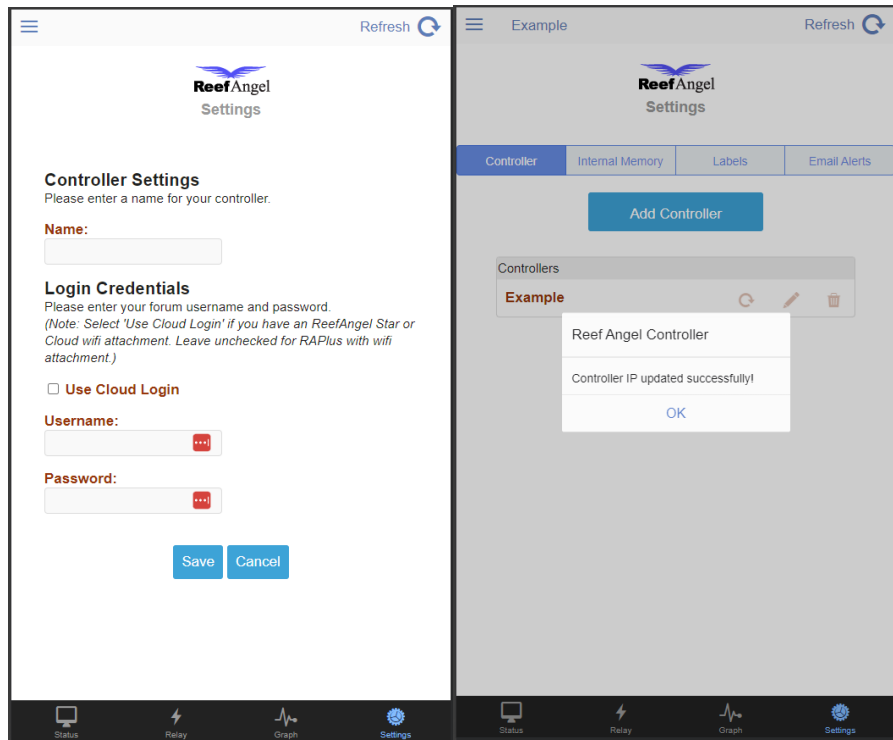
Internal Memory

Internal Memory tab is where you can update your internal memory values for your lights, dosing pumps, heater/chiller values, etc. These must be set to use internal memory when you upload the code to your controller.
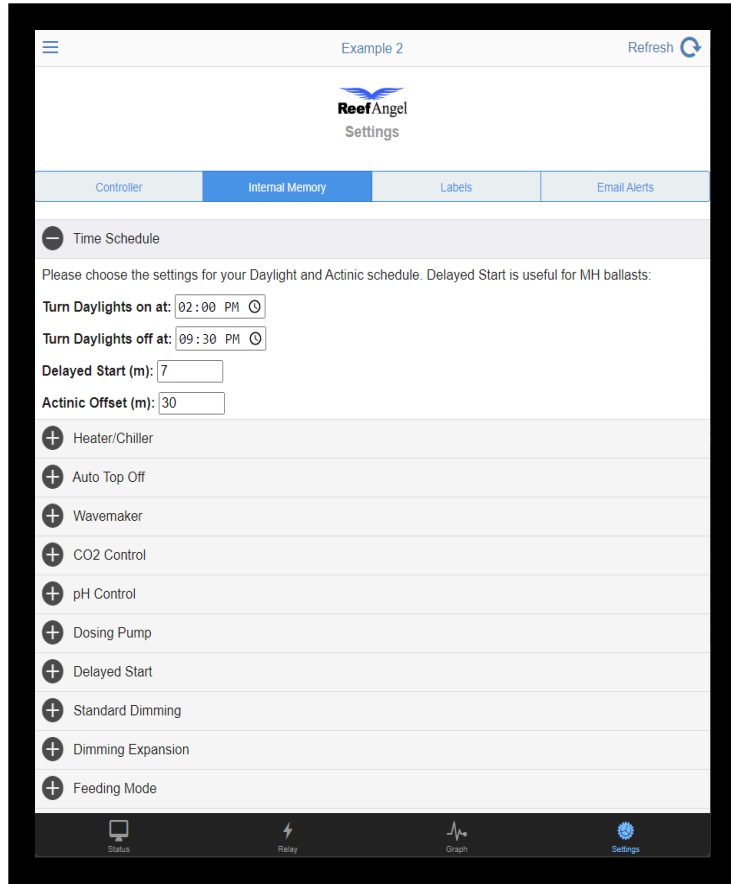
Labels

The labels page is where you can set labels for each parameter, IO ports, Dimming Ports, Relay Ports, Etc.

Click on the plus sign to open display the text input for each parameter. You can leave it blank if you do not wish to change the value or to use the default value. If you want to reset the Uapp to default values, please click "reset to defaults" and refresh the page. Once the desired labels are inputted, please click save. This will update the labels on the Uapp and save your settings in the database.
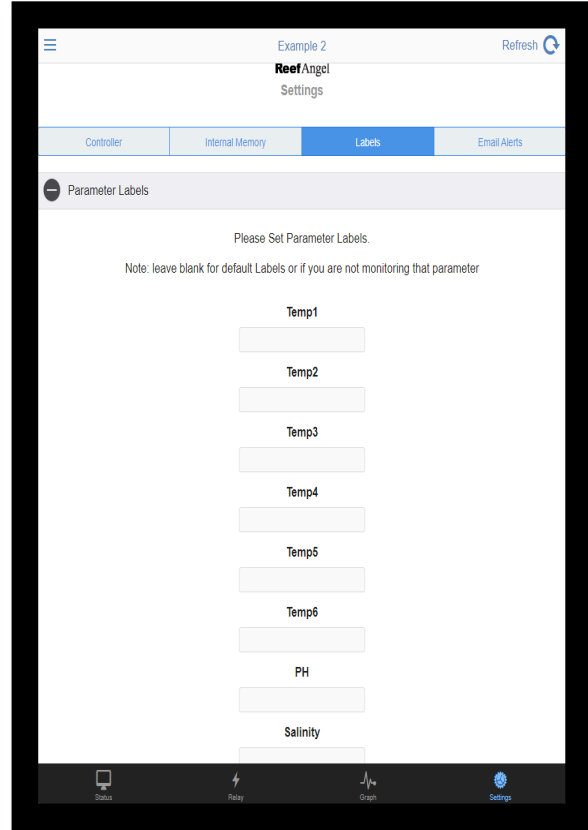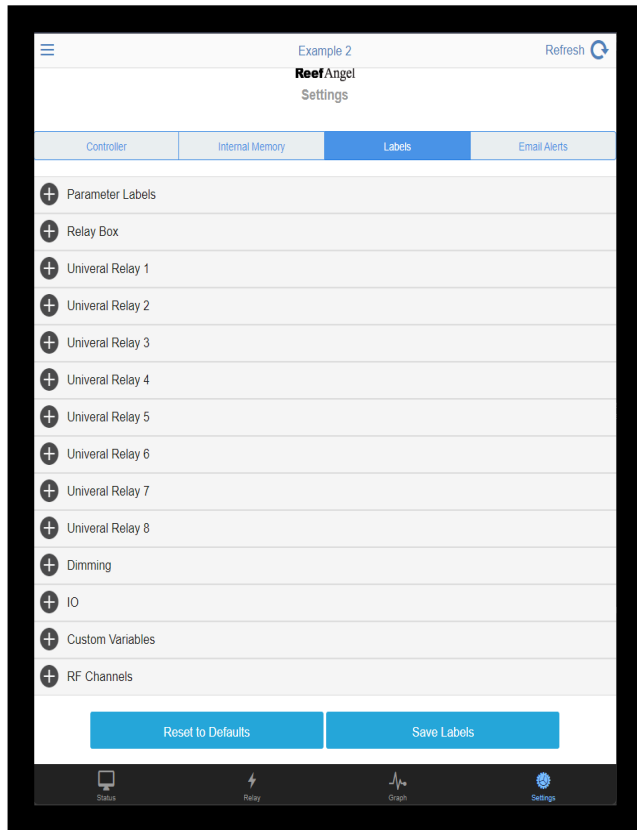
Email Alerts

Email alerts are a critical tool for keeping up-to-date with your aquarium's status. Please note:

1. **Initial Setup:** Email alerts can be set up only after your controller has initially sent data to the server, which usually takes about 5 minutes.
2. **Alert** Frequency**:** Once activated, alerts are sent when specific conditions are met and then hourly until the condition is resolved.

Features of the Email Alerts Page:

- **Connectivity Alert:** Enable an alert for instances when your Reef Angel controller stops transmitting data to the server.
- **Custom Alerts:** Create tailored alerts based on parameters such as relay status, IO ports, dimming channels, etc.

Disconnect Alert Specifics:

- The alert triggers if the controller doesn't communicate with the server for 10 minutes.
- You will receive notifications (via email or text, based on your settings) every hour until the controller reconnects or the alert is turned off.
- To enable the disconnect alert, an email address must be registered. Add your email by setting up a parameter-based alert using the form.

Alert Configuration and Limitations:

- A limit of 15 alerts can be set at any one time. We may consider increasing this limit in the future or upon specific requests.
- To create an alert, you need to input an alert name, parameter, value, and have an email address registered.
- Alerts are displayed in the table with the most recent update time from the controller and last alert sent shown at the top.

- Multiple emails are supported, but they must be separated by commas.
- You can leave the email field blank in the form if you don't wish to update it or already have one set.
- Text message alerts are also available (data rates may apply based on your phone plan). For text alerts setup, please refer to the settings for your specific phone carrier provided below.

To set up Text alerts instead of you an email address please refer to the instructions below.

AT&T: number@txt.att.net (SMS), number@mms.att.net (MMS)
Boost Mobile: number@sms.myboostmobile.com (SMS), number@myboostmobile.com (MMS)
C-Spire: number@cspire1.com
Consumer Cellular: number@mailmymobile.net
Cricket: number@sms.mycricket.com (SMS), number@mms.mycricket.com (MMS)
Google Fi (Project Fi): number@msg.fi.google.com (SMS & MMS)
H2O Wireless: number@txt.att.net (SMS), number@mms.att.net (MMS)
Metro by T-Mobile: number@mymetropcs.com (SMS & MMS)
Mint Mobile: number@tmomail.net (SMS)
Page Plus: number@vtext.com (SMS), number@mypixmessages.com (MMS)
Pure Talk: number@cingularme.com (SMS), number@cingularme.com (MMS)
Red Pocket: Uses AT&T or T-Mobile (for GSM SIMs) & Verizon for CDMA. See information for those carriers.
Republic Wireless: number@text.republicwireless.com (SMS)
Simple Mobile: number@smtext.com (SMS)
T-Mobile: number@tmomail.net (SMS & MMS)
Tello: number@tello.com (SMS & MMS)
Ting: number@message.ting.com (SMS for CDMA), number@tmomail.net (SMS for GSM)
Tracfone: number@mmst5.tracfone.com (MMS)
Twigby: number@sms.twigby.com (SMS), number@mmst5.tracfone.com (MMS)
Ultra Mobile: number@mail.ultramobile.com
U.S. Cellular: number@email.uscc.net (SMS), number@mms.uscc.net (MMS)
U.S. Mobile: number@sms.usmobile.com (SMS), number@mms.usmobile.com (MMS)
Verizon: number@vtext.com (SMS), number@vzwpix.com (MMS)
Visible: number@vtext.com (SMS), number@vzwpix.com (MMS)
Xfinity Mobile: number@vtext.com (SMS), number@mypixmessages.com (MMS).

In each case, replace "number" with the recipient's 10-digit phone number. If your carrier is not listed, please check with your carrier directly or look online for their specific email-to-text format.

TANK HEATER

Status: On / Off

19 Apr 2024   21 Apr 2024   24 Apr 2024   29 Apr 2024   6 May 2024

16 Apr   24 Apr

3d ▾   2024-04-17 18:11:28 → 2024-05-06 17:15:51

Highcharts.com

Buzzer

Status: On / Off

4 May 2024   5 May 2024   03:00   6 May 2024

16 Apr   24 Apr

3d ▾   2024-05-03 17:15:51 → 2024-05-06 17:15:51

Highcharts.com

NA

Status: On / Off

4 May 2024   5 May 2024   03:00   6 May 2024

16 Apr   24 Apr

3d ▾   2024-05-03 17:15:51 → 2024-05-06 17:15:51

Highcharts.com

Status   Relay   Graph   Settings

Alert Name	Parameter	Condition Value	Alert Value	Send Interval	Alert Description	Action
Over flow level high	WL1	>=	95	1h	Overflow level high!	✏ 🗑
Sump level high	WL2	>=	90	1h	Sump level high!	✏ 🗑
Ozone High	OZO	>=	75	1h	Ozone Value is high	✏ 🗑
Co2 is high	CO2	>=	900	1h	Co2 high open a window!	✏ 🗑
Salinity is high	SAL	>=	37	1h	Your salinity is high	✏ 🗑
Orp High	ORP	>=	375	1h	Your orp is high!	✏ 🗑
Tank Temp Low	T2	<=	77	1h	You tank temp is low check heater!	✏ 🗑
Overflow Level Low	WL1	<=	65	1h	Overflow level is low check pump	✏ 🗑
Sump water level low	WL2	<=	40	1h	Sump level is low!	✏ 🗑
Salinity Low	SAL	<=	33	1h	Your salinity is low	✏ 🗑

Status   Relay   Graph   Settings

Adding the Uapp to your phone's main page.

For Android:
1. Open your web browser (e.g., Chrome) and navigate to the [uapp](#).
2. Tap the three-dot menu icon at the top right of the screen.
3. Select "Install app" from the menu.
4. You'll be prompted to install the app.
5. The app icon will now appear on your home screen, providing quick access to the Uapp.

For iPhone:
1. Open Safari and go to the [Uapp](#).
2. Tap the Share icon (the square with an arrow pointing out) at the bottom of the screen.
3. Scroll down and select "Add to Home Screen."
4. You'll be prompted to name the shortcut. Enter your desired name and tap "Add."
5. The shortcut to the Uapp will appear on your home screen.

These steps allow for easier and faster access to the Onsen app directly from the home screen of your mobile device.

Need more help?

If you still need help or have questions, please email us at info@reefangel.com