

OptiRain Open

Smart Irrigation Scheduling and Control for Linux and Unix



QuickSmart Development
P.O. Box 3689
Santa Clara, CA 95055

408-777-0944
www.QuickSmart.com



OptiRain Open is a web-application that provides sophisticated irrigation control for one or more local EtherRain sprinkler valve controllers. OptiRain Open provides "smart" irrigation control along with an easy-to-use "likeable" user interface that is flexible and accessible.

OptiRain Open is a smart scheduler: it uses both seasonal factors and weather conditions when making irrigation decisions thereby more accurately matching irrigation output to your landscape's actual irrigation requirements. The main benefit of optimized smart irrigation is the reduction or elimination of over-watering. Over-watering, applying too much water, harms your landscape while also being costly both in terms of direct water usage fees as well as needlessly straining the local water supply. Other benefits of OptiRain Open, for those who already run a Linux or Unix server, are: easy access, button-click control, and flexible scheduling that is easy to setup and change.

Using OptiRain Open to schedule and control one or more EtherRain controllers provides reliable, accessible, and easily controllable irrigation. OptiRain Open can be accessed from any computer that is equipped with a modern browser. OptiRain Open uses Javascript and cookies. See page 4 in this brochure for information about installing OptiRain Open on your Linux or Unix based server.

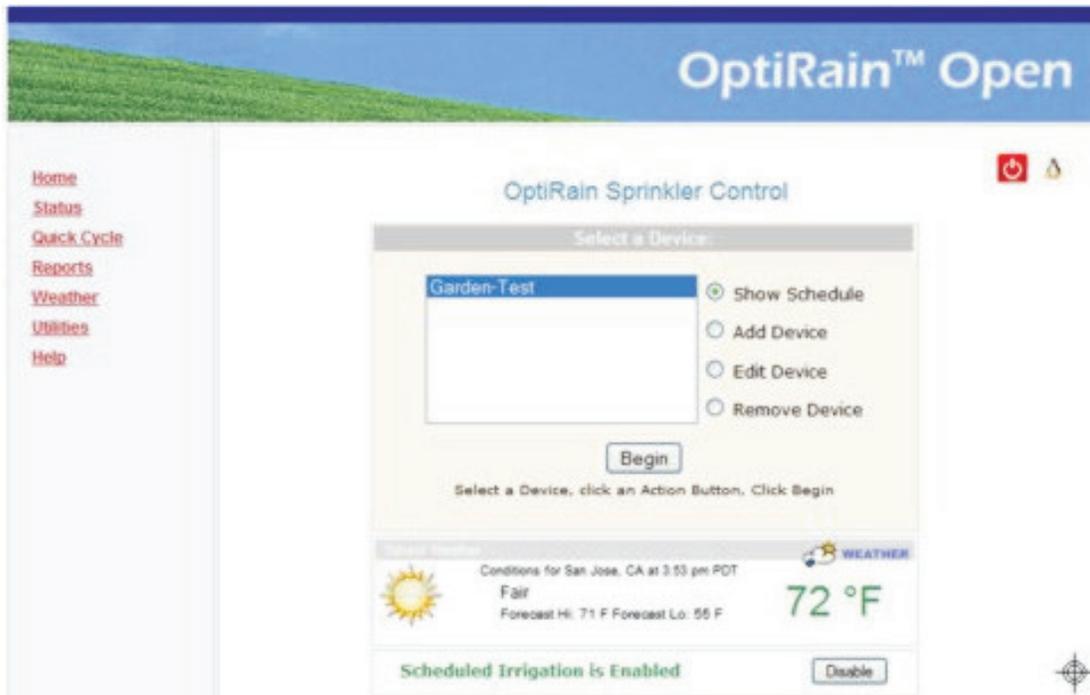
Operation

OptiRain Open allows you to create a year around optimized irrigation schedule for your landscape. OptiRain stores the irrigation schedule for all of your controllers within its central database on your server. When it's time to send an irrigation command to the controller, OptiRain first checks the weather conditions as well as the calendar to calculate a custom irrigation command and then sends that command to the appropriate controller about 15 minutes before the scheduled irrigation time. Irrigation amounts vary based on the parameters you specify. Sometimes weather conditions will block a command. All commands are recorded into a command log so you can easily see the command history.

OptiRain Open is a web application consisting of a folder of scripts. OptiRain Open is dependent upon a working Apache web server that has the PHP5 module installed as well as a recent install of SQLite. The installed PHP5 module requires PDO support for SQLite. Installation of wget is also required. See page 4 for more complete information. OptiRain has very moderate processing requirements and requires very little storage.

Screen Shots

The next three pages provide screen shots demonstrating the user interface of OptiRain Open as displayed on a typical browser.



Main Page showing weather configured and Scheduled Irrigation enabled.

OptiRain™ Open

Irrigation Schedule for: Garden-Test

Program Name	Start Time	Days On	Months On	Zone	Mins	Weather
Main Tester	2:10 PM <small>(Split into 2 Cycles with 15 minute Pause)</small>	Mon Tues Wed Thurs Fri	Jan 20%; Aug 60%; Sep 100%; Oct 100%; Nov 100%; Dec 100%	Front Rotors Street Front Rotors House Side Garden Drip	8	OFF if Rain RainBrain ON
main tree	9:00 AM	Every Wednesday	Dec 100%	Front Rotors Street Front Rotors House Side Garden Drip	20	OFF if Rain SMART TREE
winter maintain	10:00 AM					

Irrigation Schedule Summary Page. Each Schedule can have up to 5 independent programs.

OptiRain™ Open

Selected Device: Garden-Test

Edit Program Active:

Name: Main Tester

Start Time: 2:10 PM

Multi-Cycle: Number of Cycles: 2, Inter-Cycle Delay: Auto

Days On: Mon: Tues: Wed: Thur: Fri: Sat: Sun:

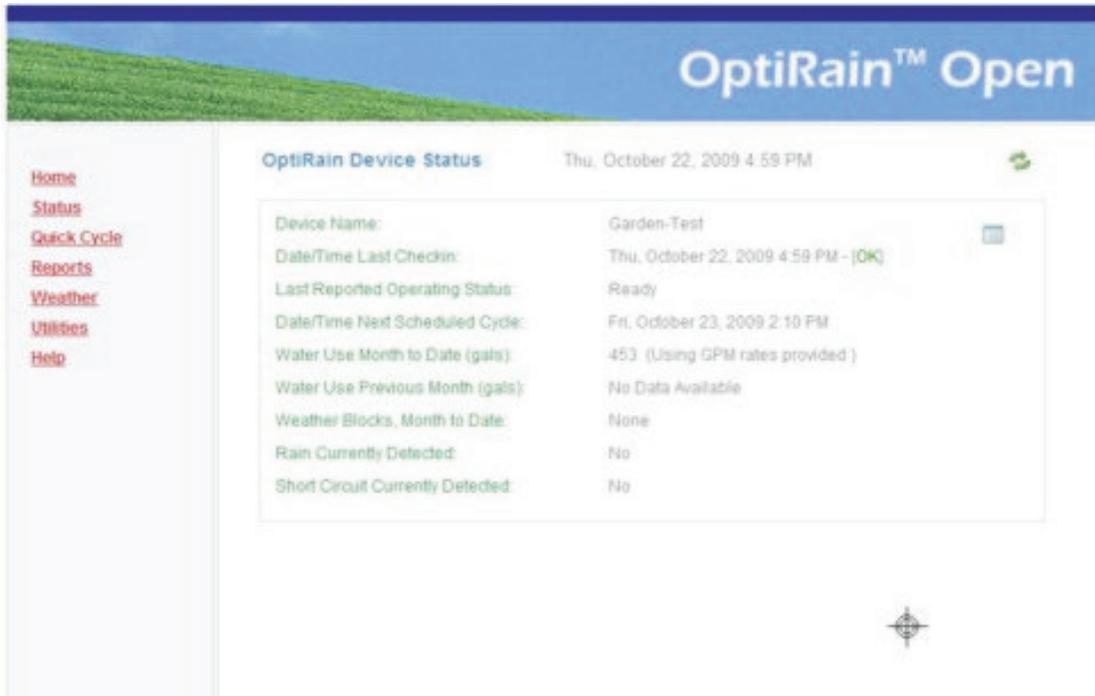
Months On:

Jan: 20%	Apr: OFF	Jul: OFF	Oct: 100%
Feb: OFF	May: OFF	Aug: 60%	Nov: 100%
Mar: OFF	Jun: OFF	Sep: 100%	Dec: 100%

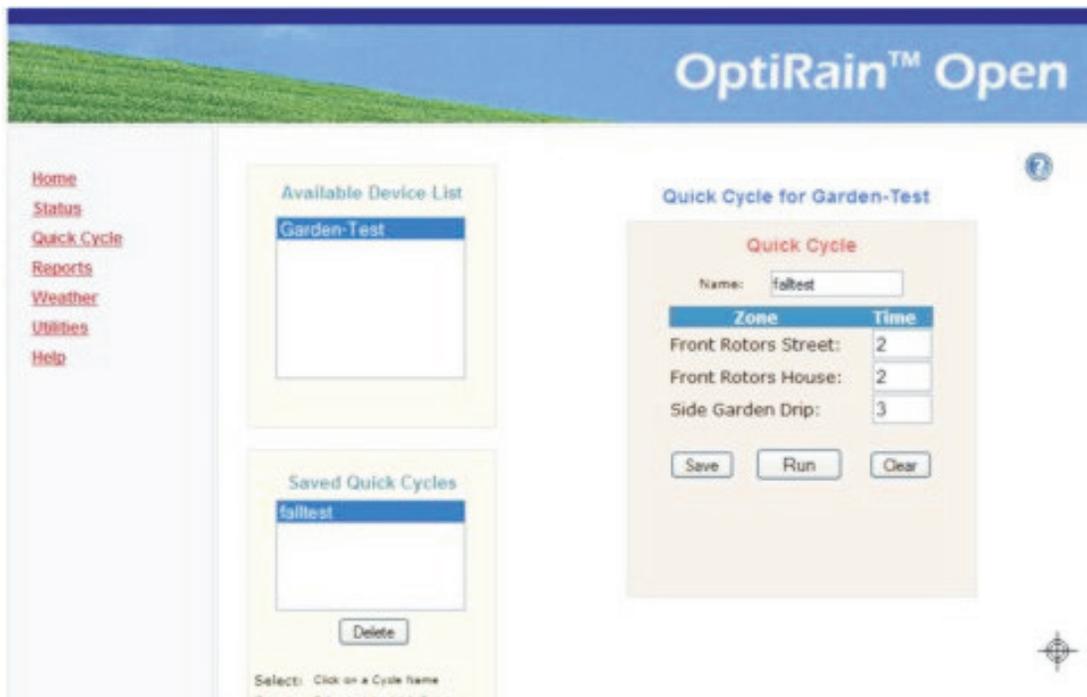
Weather

- Deactivate on Precipitation:
- Deactivate if Temperature is Cool: (50F or less)
- Activate Only on High Temp: (90F or more)
- Enable RainBrain: (see Help for Info)

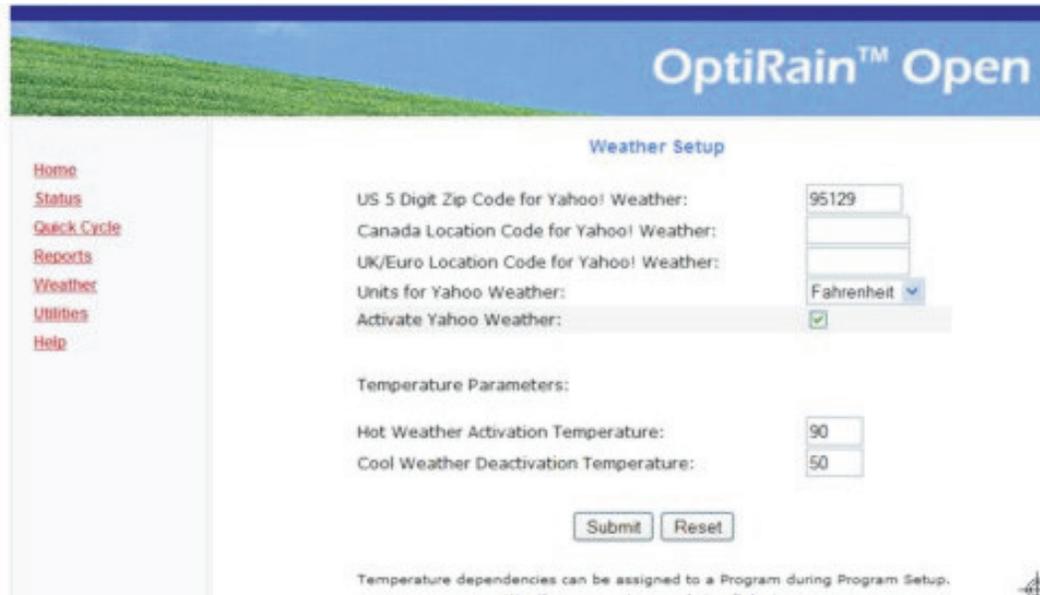
Program Setup Page. Notice calendar setup and weather dependencies



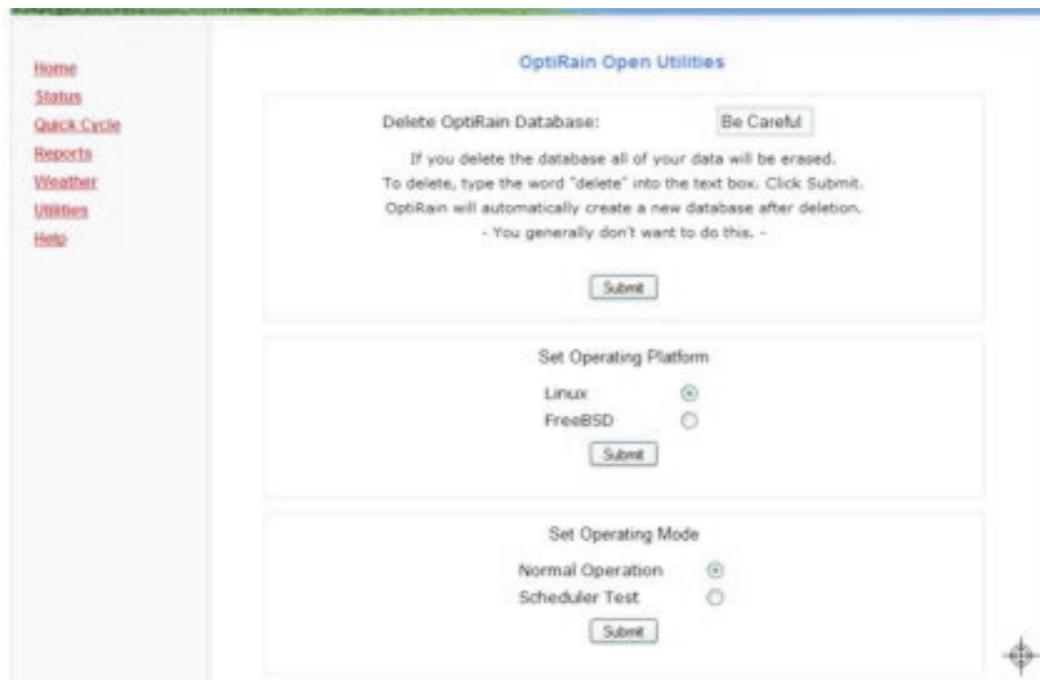
Status Page provides current information and status on all active controllers



Quick Cycle page provides easy manual cycle irrigation and saves cycles.



Weather Setup page.



Utilites page showing toggle for Linux/FreeBSD and Operating Mode

Installation

OptiRain Open is a web application consisting of a folder of scripts. OptiRain Open is dependent upon a working Apache web server that has the PHP5 module installed as well as a recent install of SQLite. The installed PHP5 module requires PDO support for SQLite and wget is also required.

Before installing OptiRain Open you should verify that your webserver is properly configured and working. You should run a test page that displays the result of the phpinfo() function. The phpinfo() display should show that PHP 5.25+ is installed, PDO support is enabled, PDO driver for SQLite 3 is enabled, SQLite support is enabled, Sockets support is enabled. In addition you should check that wget is installed on your server.

After confirming that the required PHP5 modules are installed, OptiRain Open can be installed by copying the OptiRain script directory into the document root directory for your web server. Copy or FTP the complete directory, preserving directory names. If you need an index file, copy the provided index.html file into the document root. After all files are copied, you may need to change permissions on the directory and index file so that the web server can read them. Generally speaking, issuing the command: `chmod -R 0775 optirain` from the document root directory will provide the necessary permissions. You may also need to issue `chmod 0644 index.html` if you copied in the index file.