Electric Mayhem xTP

Config File Description

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rev** | **Date** | **Author** | **Description** |
| 1 | 11/15/11 | GJS | First draft |
| 2 | 11/30/11 | GJS | Added “RFID loop” option |
| 3 | 12/6/11 | GJS | “max light temperature” changed to “max temperature” |
| 4 | 1/26/12 | GJS | Reformatted. Added new rfid and tap settings. |
| 5 | 1/31/12 | GJS | Added “secure id” option |
| 6 | 2/16/12 | CJW | Added SSL options. |
| 7 | 2/24/12 | GJS | Location of config file changed to /var/mayhem |
| 8 | 2/29/12 | GJS | Added “xbio” option |
| 9 | 4/2/12 | GJS | Added “public id” option |
| 10 | 4/5/12 | GJS | Changed the default tap light and tap light timeout values. Applies to software version 0.2.3. |
| 11 | 9/11/2012 | CJW | Added “stats period” option. |
| 12 | 5/22/2012 | CJW | Replaced “enable webserver ssl” and “port” options with mongoose options passed in through the “webserverOptions” dictionary. |
| 13 | 7/19/2012 | CJW | Added “disable lights” option. |
| 14 | 9/26/2012 | GJS | Added “last xbrc url” field. |

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# Introduction

## Purpose

Document the options that may be set via the xFP’s config file.

## Scope

Applies to the xFP only.

## Background

The xFP maintains a config file located at /var/mayhem/config.json. The contents of the file is formatted as json. This file is used both for saving configuration options are set by the xBRC, and to allow for overriding some default values by manually editing the config file. This document describes the contents of this file.

Note that any configuration options that can be set in the config file are optional and will default to hard coded default values if not provided and not set by the xBRC.

## Reference

| Document Name & Version | Relationship |
| --- | --- |
| xFP Interface Control Document (ICD) | Documents interface between xFP and xBRC. |

# Sample Config File

Here is a sample config.json file with an entry for every available option:

{

“last xbrc url” : “10.89.48.2:8080”,

"xbrc url" : "10.89.48.2:8080 ",

"name" : "",

“webserverOptions”: {

"listening\_ports" : “8080”,

“ssl\_certificate”, “/usr/lib/ssl/server.pem”

}

"log level" : 4,

“mute” : 0,

"test loop" : 0,

“public id” : 1,

“secure id” : 0,

“rfid debounce”: 5,

“rfid test loop” : 0,

“stats period” : 3600,

“tap light” : “green”,

“tap sound” : “tap.wav”,

“xbio” : 1,

“xbio image capture” : 0,

“scan timeout” : 8,

“max temperature” : 70,

“light thresholds” : [1000, 15000],

“blue levels” : [10, 20, 35],

“green levels” : [15, 25, 40],

“bio levels” : [10, 15, 25],

“ssl verify host” : false,

“disable lights”: false

}

# Config File Options

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Default | Description |
| blue levels | PWM (array) | [10,40] | PWM level for the blue LEDs. The PWM level selected is based on the ambient light level which is compared to the “light thresholds” array to come up with an index into the “blue levels” array. |
| disable lights | Boolean | false (0) | Disables the display of LED effects on the device. Will also cause the reader to not read the ambient light sensor. *This option is only available on newer devices and may not be present on older models.* |
| green levels | PWM (array) | [10,40] | PWM level for the green LEDs. The PWM level selected is based on the ambient light level which is compared to the “light thresholds” array to come up with an index into the “green levels” array. |
| last xbrc url | text | none | This is the last URL used to attempt to communicate with the xBRC. This value is written by the xTP at run time and is not intended to be directly edited. If you need to use the config file to point to an xbrc, add a “xbrc url” parameter. |
| light thresholds | lux (array) | 4500 | An array of increasing light thresholds. This array is used along with the light level arrays to determine how much current should be delivered to the LEDs. |
| log level | 0..5 | 2 | Specifies the amount of information to write to the log file.  0 = logging off  1 = errors only  2 = errors and warnings  3 = level 2 + info messages  4 = level 3 + debug messages  5 = level 4 + all traffic between the dap-reader application and Feig, and between the dap-reader application and xbio. |
| max temperature | Celsius | 70.0 | The lights are kept off if the temperature rises above this threshold. |
| mute | Boolean | false (0) | Sounds are muted if set to true or 1 |
| name | text | “” | The name of the reader as set by the xbrc. |
| public id | Boolean | true (1) | Set to false to disable reading and reporting of public IDs.  (Note: If you turn this off and secure id off, then any RFID tag will generate an event with only the UID). |
| rfid debounce | seconds | 5 | A RFID tag must leave the RFID field for this long before it will be read a second time. |
| rfid test loop | Boolean | false (0) | If true, the dap-reader, then a single RFID card kept in front of the antenna will generate a new RFID event every few seconds. |
| scan timeout | seconds | 8 | Timeout in seconds for xbio scans. |
| secure id | Boolean | true (1) | Set to false to disable reading and reporting of secure ID. |
| ssl verify host | Boolean | false (0) | Enables host verification on outgoing HTTP connections when using SSL. |
| stats period | seconds | 3600 | Period in which to collect statistical data on RFID read timings. |
| tap light | text | “thinking” | If set, then the dap-reader will display the given color or lighting effect for the time set by “tap light timeout” after each tap. See the xFP ICD for a list of the available colors and lighting effects. |
| tap light timeout | milliseconds | 10000 (10 sec) | Duration of the tap lighting effects set by “tap light” |
| tap sound | wave file | “” | If set, then it should refer to a .wav file that exist in the /mayhem directory, and that sound will be played after each tap. |
| test loop | Boolean | false (0) | If true, dap-reader will go into a self-test loop on start up. |
| webserverOptions | JSON Dictionary | See Description | A list of name/value pairs that describe mongoose web server options. See manual at <https://github.com/valenok/mongoose/wiki/Mongoose%20Manual> for a list of available options.  Defaults:  {  “listening\_ports”: “8080”  “ssl\_certificate”: “/usr/lib/ssl/server.pem”  } |
| xbio | Boolean | false (0) | Should be set to true (1) if an xbio is required. Note that the dap-reader program will auto-detect whether an xbio is installed regardless of this setting. This option exists strictly so that the dap-reader will properly report an error condition if the xbio is not detected when it should be. The dap-reader will not report an error if this is not set and no xbio is detected. |
| xbio image capture | Boolean | false (0) | If set `true, then image data will be pulled from the xbio after each fingerprint read and passed to the xbrc. |
| xbio levels | PWM (array) | [10,30] | PWM level for the xbio LEDs. The PWM level selected is based on the ambient light level which is compared to the “light thresholds” array to come up with an index into the “xbio levels” array. |
| xbrc url | text | “” | The url of the xbrc. The dap-reader program will post a message to this url + “/hello” at startup.  Under normal circumstances, the xbrc url is provided by the dhcp server and written to the file “/var/lib/dhcp/xbrc-url”. This config file setting provides a way to override the url provided by the dhcp server. |