MaxAir Release History

Current Version	3.00
Current Build	101123
Current Database Version	1.0
Current Database Build	071023

Last Update

- Commit #489 – Update – gateway.py – Python module 'telnetlib' (used to send and receive TCP data packets) is deprecated in Python version 3.11 and will be removed in version 3.13. Replaced with socket.sendall and socket.recv(1). As there is no direct replacement for telnetlib.readline(), a separate program thread has been created to read the socket stream until a newline character has been detected and compose a message queue, which is read line by line by the main program thread.

- Commit #489 - Update – gateway.py – a logfile to monitor incoming 'heartbeat' messages is created at '/var/www/logs/gateway_heartbeat.log'. The logfile is automatically emptied at midnight each day.

History

Date	Version	Build	DB Version	DB Build	ChangeLog
28/10/2020					Ported from PiHome, initial HVAC build
30/10/2020					Improvements to setup.php
07/12/2020					Change controller.php to operate on state change
19/12/2020					Bug Fixes and performance improvements
20/12/2020					Performance improvements, change boiler table to system_controller
24/12/2020					Further updates, update demo databases
26/12/2020					Further updates, remove redundant files
26/12/2020					Udate system_c.php to work with Orange Pi boards
29/12/2020	0.1	Beta 1			Introduce code version and build numbering
03/01/2021	0.1	Beta 1			Further updates
04/01/2021	0.1	Beta1			Add Orange Pi Zero pin mapping
05/01/2021	0.1	Beta 1			Update chars to use sensors table
06/01/2021	0.1	Beta 1			Cosmetic changes
07/01/2021	0.1	Beta 1			Allow creation of 'Dummy' sensor nodes
07/01/2021	0.1	Beta 1			Allow graph placement or suppression
09/01/2021	0.1	Beta 1			Bug fixes – graph related
11/01/2021	0.1	Beta 1			Bug Fixes – graph shading
13/01/2021	0.1	Beta 1			Combine Zone and System Controller logs
14/01/2021	0.1	Beta 1			Add support for Orange Pi Zero Plus board
14/01/2021	0.1	Beta 1			Combine add-on log tables
15/01/2021	0.1	Beta 1			Bug Fix
16/01/2021	0.1	Beta 1			Bug Fix – Orange Pi board detection
20/01/2021	0.1	Beta 1			Graphing for Add_On controllers
20/01/2021	0.1	Beta 1			Change all references from 'boiler' to 'system_controller'
21/01/2021	0.1	Beta 2			Update to setup.php to add default network_settings record
22/01/2021	0.1	Beta 2			Only process SonOff devices if network is available
29/01/2021	0.1	Beta 2.1			Bug Fix and update to Onetouch menu
03/02/2021	0.1	Beta 2.1			Update to livetemp
04/02/2021	0.1	Beta 2.1			Improvements to livetemp
06/02/2021	0.1	Beta 2.1			Bug Fix – onetouch
08/02/2021	0.1	Beta 2.2			Relay control managed using the messages_out queue, improvements to livetemp

Date	Version	Build	DB Version	DB Build	ChangeLog
10/02/2021	0.1	Beta 3			Schedule control using Python Schedule in place of Cron
11/02/2021	0.1	Beta 3.2			Implement GUI for Job Scheduling
12/02/2021	0.1	Beta 3.2			Bug Fix – controller.php
15/02/2021	0.1	Beta 4			Change to Frost Protection to make it sensor rather than zone based
16/02/2021	0.1	Beta 4			Use node_id in relay setup and display
17/02/2021	0.1	Beta 4			Bug Fix – email address entry
17/02/2021	0.1	Beta 4			Bug Fix – email address modal
17/02/2021	0.1	Beta 4			Bug Fix – Frost Protection
18/02/2021	0.1	Beta 4.2			User Account Management
18/02/2021	0.1	Beta 4.2			Enable/Disable User Accounts
18/02/2021	0.1	Beta 4.2			Enable the disabling of a looged-on user account
19/02/2021	0.1	Beta 4.3			Add admin category to User Accont Management, suppress Settings menu for non-admin users. Delete redundant files
19/02/2021	0.1	Beta 4.3			Tidy up display of disabled delete buttons
20/02/2021	0.1	Beta 4.3			Bug Fix – udate_db.php referencing the wrong repository
20/02/2021	0.1	Beta 4.3			Bug Fix – boostSet.php
20/02/2021	0.1	Beta 4.3			Tidy up Views
20/02/2021	0.1	Beta 4.3			Bug Fix – setup.php
20/02/2021	0.1	Beta 4.3			Re-commit of model.php
21/02/2021	0.1	Beta 4.3			Improvements to Job Scheduling
21/02/2021	0.1	Beta 4.3			Implement System Controller Max Run Time
21/02/2021	0.1	Beta 4.4			Big Fix – Add relay modal, reorder Settings Menu
22/02/2021	0.1	Beta 4.4			Tidy up of model.php
23/02/2021	0.1	Beta 4.4			Re-sync messages_out on gateway startup, HVAC bug fix for frost protection and update to test databases
23/02/2021	0.1	Beta 4.4			Update relay.php to include select/option applied to sensor.php
24/02/2021	0.1	Beta 4.4			Bug Fix – header.php
25/02/2021	0.1	Beta 4.4			Bug Fix – add/edit System Controller record
25/02/2021	0.1	Beta 4.4			Add Status Menu option to display last Job Schedule report
26/02/2021	0.1	Beta 4.5			Add option to gateway to not process networked messages_out (test mode)
27/02/2021	0.1	Beta 4.5			Add python script to update code base from GitHub repository

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27/02/2021	0.1	Beta 5			Rename database from 'pihome' to 'maxair'
27/02/2021	0.1	Beta 5			Home Assistant Integration – api changes
05/03/2021	0.1	Beta 5			Bug Fix – add additional zone controllers
06/03/2021	0.1	Beta 5			Enable blocking of outgoing messages (test mode)
07/03/2021	0.1	Beta 5			Bug Fix – onetouch.php
14/03/2021	0.1	Beta 5			Bug Fix – Raspbian compatibility for AutoHotSpot
17/03/2021	0.1	Beta 5			Bug Fix – work in AP mode
17/03/2021	0.1	Beta 5			Bug Fix – Echo and HomeKit installer
18/03/2021	0.1	Beta 5			Improvements in Echo and HomeKit installer
20/03/2021	0.1	Beta 5			Bug Fix – allow scheduling of zones with no attached sensor (Tasmota)
22/03/2021	0.1	Beta 5			Bug Fix – gateway.py, enable/block outgoing messages. Bug Fix – add new scheduled job
23/03/2021	0.1	Beta 5			Implement WiFi reboot for systems running NetworkManager
24/03/2021	1.0	RC1			Move to Release Candidate 1
26/03/2021	1.0	RC1			Move AutoHotSpot to add_on directory
26/03/2021	1.0	RC1			Add nodes listing to Status menu
26/03/2021	1.0	RC1			Update to English language file
27/03/2021	1.0	RC1			Add documentation
27/03/2021	1.0	RC1			Add documentation Tasmota Lamps
27/03/2021	1.0	RC1			More documentation
28/03/2021	1.0	RC1			Update to Operating Modes documentation
28/03/2021	1.0	RC1			Documentation – add separate Boiler and HVAC mode setup guides
29/03/2021	1.0	RC1			Documentation – Live Temperature Control, Displaying Graphs and Frost protection
30/03/2021	1.0	RC1			Update to APIs and API Documentation
31/03/2021	1.0	RC1			Bug Fix – create HTTP message and Documentation
31/03/2021	1.0	RC1			Zone Types Documentation
31/03/2021	1.0	RC1			Task Scheduling Documentation
01/04/2021	1.0	RC1			Add AutoHotSpot to Services Configuration menu
02/04/2021	1.0	RC1			Improve install of APIs – add script to check for and enable Apache2 mod-rewrite
08/04/2021	1.0	RC1			Enable background add-on install, plus Bug Fixes
08/04/2021	1.0	RC1			Big Fix – sw_install.py. Display install text when finished installing

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10/04/2021	1.0	RC1			Bug Fix – setup.php. New version of software install process.
11/04/2021	1.0	RC1			Documentation – Software Install
11/04/2021	1.0	RC1			Documentation – Technical description of install process. Add documentation access from the System Status menu
12/04/2021	1.0	RC1			Documentation Update – Task Scheduling. Add gpio_ds18b20 disabled task, all other tasks enabled by default by setup.php
13/04/2021	1.0	RC1			Documentation – Using Dummy Sensors to Import External Data
13/04/2021	1.0	RC1			Bug Fix – Gateway type default set to Serial if gateway table is empty
14/04/2021	1.0	RC1			Add Si7021 Humidity Sensor, with selection of sensor type in sensor.php, plus associated database changes
16/04/2021	1.0	RC1			Improvement to task scheduling to allow once daily jobs. Enable db_cleanup task. Simplification of humidity graphing. Bug Fix
16/04/2021	1.0	RC1			Update to controller.php for OFF mode to set system completely OFF (NO frost protection)
17/04/2021	1.0	RC1			Documentation – Humidity Sensors
27/04/2021	1.0	RC1			Change table temperature_sensors to sensors and controller_relays to relays. Database changes can be implemented by executing the php script 'migrate_sensors_relays.php from within the /var/www/MySQL_Database directory
28/04/2021	1.0	RC1			Add Sensor Type GUI. Terminate gateway script if route to network gateway is lost
01/05/2021	1.0	RC1			Enable deletion of unused nodes
02/05/2021	1.0	RC1			Bug Fix – db.php
02/05/2021	1.0	RC2			Remove Nodes optionfrom System Status menu as function now provides by Nodes in Node and Zone Configuration menu. Add tooltips to Sensors and Relays model for disabled entries
04/05/2021	1.0	040521			First Release Version
Add hardware support for the PineH64 board. Manage messages_out queue entries from relay.php rather than zone.php

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06/05/2021	1.0	050521			Enable Zone delete at the end of controller.php cycle using purge record marker (this function was previously performed by piconnect.php)
06/05/2021	1.0	050521			Tidy up Zone Deletion. Documentation
07/05/2021	1.0	050521			Bug Fix – update mysql_database.sql Foreign Key Constraint name on relay table
08/05/2021	1.0	080521			Database update for zone_controllers and relays tables. Associated php modules code updates. Note: DO NOT run update_db.php, instead use migrate_zone_controllers.php to retain existing data
11/05/2021	1.0	080521			Bug Fix – database
11/05/2021	1.0	080521			Add check to migrate_zone_controllers.php to abort if zone_relays table already exists
18/05/2021	1.0	170521			Bug Fix – Boost Update deleting GIO controller messages_out records when no boost console is installed
22/05/2021	1.0	210521			Bug Fix – Correct Login heading when AutoHotSpot is not installed. DS18B20 Documentation
25/05/2021	1.0	250521			Add support for Rock Pi E board
08/06/2021	1.0	250521			Update Pin_Dict.py add Orange Pi Zero2 1x13 header GPIO pins
08/06/2021	1.0	250521			Tidy up – removing duplicates
09/06/2021	1.0	250521			LoRa (RFM95) sketch
09/06/2021	1.0	250521			Add documentation for using the Orange PI Zero 2 board
10/06/2021	1.0	100621			Update db_cleanup.php. Remove delete zone_graphs as already actioned in gateway.py. Update system_c.pjp board detection method to use Adafruit PlatformDetect. Correct latest document name spelling.
10/06/2021	1.0	100621			Documentation – Adafruit Blinka
12/06/2021	1.0	100621			Update Orange Pi Zero 2 documentation – implementing 1-wire interface
13/06/2021	1.0	100621			Delete document, in wrong directory
16/06/2021	1.0	100621			Add separate AutoHotSpot function for distributions running NetworkManager
17/06/2021	1.0	170621			Bug Fix = installer improvements and implementation of iptables for connection with internet
18/06/2021	1.0	170621			Update README.md to include list of supported boards
28/06/2021	1.0	190621			Update build number

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28/06/2021	1.0	190621			Commenting out update title
27/07/2021	1.0	270721			Trap error line in gateway.py Tidy up Pin_Dict.py
29/07/2021	1.0	280721			Gateway.py – if WiFi type gateway then ping router once every 3600 seconds
30/07/2021	1.0	300721			Bug Fix – code update
04/08/2021	1.0	010821			Move MaxAir Update to the Settings.Status meni and rename as MaxAir Versions
05/08/2021	1.0	040821			Add Update Code from GUI
06/08/2021	1.0	060821			Bug Fix – update_code.py for nested sub-directories
09/08/2021	1.0	070821	1.0		Bug Fix – move_files.php Initial implementation for database updates from GUI
11/08/2021	1.0	100821	1.0	BASE	Tidy up
12/08/2021	1.0	120821	1.0	BASE	Add documentation links to modal headers
14/08/2021	1.0	130821	1.0	130821	Implement Correction Factor for sensor readings Bug Fix – gpio_ds18b20.py
14/08/2021	1.0	140821	1.0	130821	Bug Fix – apply_database_update.php and setup.php to add any database updates required over the BASE database image
14/08/2021	1.0	150821	1.0	130821	Bug Fix – header.php not suppressing updates.txt in file list GPIO relay test
16/08/2021	1.0	170821	1.0	130821	Enable 1-wire script to return either Centigrade or Fahrenheit depending on units selected
16/08/2021	1.0	170821	1.0	170821	Bug Fix – add column sub_type to nodes table to support humidity sensors
17/08/2021	1.0	170821	1.0	170821	Fixes for working in Fahrenheit
18/08/2021	1.0	180821	1.0	180821	Allow selection of GPIO Relay trigger level
19/08/2021	1.0	190821	1.0	180821	Update to move_files.php to kill gateway.py and/or gpio_ds18b20.py and/or jobs_schedule.py if they have been updated. Set live temp icon depending on Units. Documentation
23/08/2021	1.0	230821	1.0	180821	Bug Fix – scheduling.php, slider max temperature Fahrenheit conversion if required

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26/08/2021	1.0	240821	1.0	180821	Only allow 'admin' user to perform updates Sensor and Zone documentation
27/08/2021	1.0	260821	1.0	180821	Update foreign language files
28/08/2021	1.0	270821	1.0	270821	Allow creation of non temperature zones
28/08/2021	1.0	270821	1.0	280821	Update to 270821.sql to check zone type record does not already exist
30/08/2021	1.0	300821	1.0	300821	Enable definition of units character (or special character string) for Sensor Type
30/08/2021	1.0	300821	1.0	300821	Update Sensors documentation. Check for existing column in 300821.sql Bug Fix and improvements to setup.php
31/08/2021	1.0	310821	1.0	300821	Bug Fix for initial setup when no relays are installed find_my_gateway not triggering when incorrect ip is entered for wifi gateway
31/08/2021	1.0	310821	1.0	300821	Update check_gw.php to improve reliability of counter Ug Fix – zone.php when only 1 sensor is available
02/09/2021	1.0	010921	1.0	310821	Fix for add new node Fix for gateway.py to enable it to run when relays have been added but not allocated to a zone Basic Fault Finding documentation Improved document listing
02/09/2021	1.0	020921	1.0	310821	Documentation update. Missing model.php code update Change to update_code.py to fix directory privileges error introduced by using 'shutil'
03/09/2021	1.0	030921	1.0	310821	Bug Fix – remove shutil from update_code.py completely, use rm -R to avoid permission error
04/09/2021	1.0	040921	1.0	310821	Add sketch for Switch Sensor Sensor Types documentation Fix move_files.php
06/09/2021	1.1	040921	1.0	310821	Bug Fix – change move_files.php to move_files.py
06/09/2021	1.1	060921	1.0	310821	Fix typo in documentation
06/09/2021	1.1	060921	1.0	310821	Add 'Switch' zone, for use with a binary sensor Documentation Change Arduino Sketches directory Bug Fix – update_code.py
06/09/2021	1.1	060921	1.0	310821	MySensors Gateway installation script

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07/09/2021	1.1	070921	1.0	310821	Change to move_files.py to create any missing/new sub-directories
07/09/2021	1.1	070921	1.0	310821	Change default password to maxair
08/09/2021	1.1	070921	1.0	310821	Enable log pipe for MySensors Gateway
09/09/2021	1.1	070921	1.0	310821	Script to enable 1-wire sensors
11/09/2021	1.1	110921	1.0	310821	Switch Zone – Bug Fix Move switch zone to Add-On area of home screen
13/09/2021	1.1	130921	1.0	310821	Bug Fix – Switch Zone
13/09/2021	1.1	130921	1.0	310821	HA Integration
13/09/2021	1.1	130921	1.0	310821	Bug Fix – scheduling.php updated to match last table update
14/09/2021	1.1	140921	1.0	310821	Update ReadMe
14/09/2021	1.1	140921	1.0	110921	Move all add-on zones to right of boiler tile Change Lamp icon to Switch icon Separate out switching type zone processing in controller.php
16/09/2021	1.1	160921	1.0	110921	Modify Software Install Process to display name and description
16/09/2021	1.1	160921	1.0	110921	Stand-alone sensors
17/09/2021	1.1	170921	1.0	110921	Bug Fix – zone index_id not updating Add name/description to HomeAssistant install.sh
18/09/2021	1.1	180921	1.0	180921	Add Sunset/Sunrise option to scheduling.php Active Schedule Processing move to a function and processed using variable comparison rather than SQL time functions. Fixes a midnight rollover, where end time is on the day after start time. Bug Fix – not creating database backup
19/09/2021	1.2	180921	1.0	180921	Bug Fix – Update 180921.sql
19/09/2021	1.2	180921	1.0	180921	Bug Fix – Update relay.php, widen scope of MySensor name check
20/09/2021	1.2	200921	1.0	180921	Fix for model.php to add default value to gateway timeout, to prevent setup record not being save to database
21/09/2021	1.2	200921	1.0	180921	MQTT Nodes
22/09/2021	1.2	210921	1.0	180921	Partial bug fix controller.php to follow
22/09/2021	1.2	210921	1.0	180921	Bug Fix controller.php for MySensor relays
23/09/2021	1.2	210921	1.0	180921	Restore gateway.py
23/09/2021	1.2	210921	1.0	180921	Minor bug fix to controller.php for screen message using wrong variable name
23/09/2021	1.2	210921	1.0	180921	Bug Fix
24/09/2021	1.2	210921	1.0	180921	Stabilization Fix

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24/09/2021	1.2	240921	1.0	180921	Bug Fix for scheduling.php to display status icons correctly controller.php add missing variable initialization
26/09/2021	1.2	250921	1.0	250921	Update gateway.py for MQTT Nodes
30/09/2021	1.2	250921	1.0	250921	Use of column description instead of fix index access the cursor
03/10/2021	1.2	250921	1.0	031021	Bug Fix – Update gateway.py to reduce wifi ping check to once ever 60 seconds else network connection could be lost and restored with no gateway reset
07/10/2021	1.2	280921	1.0	031021	MQTT Web Interface
08/10/2021	1.2	081021	1.0	031021	Mode Button can operate in current cyclic mode or with pop-up button menu. Choose at Mode Selection either cyclic or button
09/10/2021	1.2	091021	1.0	031021	Bug Fix – mode.php
09/10/2021	1.2	091021	1.0	031021	Bug Fix – model.php to set correct value for Mode selection Fix for homelist.php where multiple zone controllers are attached to a single zone
10/10/2021	1.2	101021	1.0	031021	Home Assistant Integration Update
10/10/2021	1.2	101021	1.0	031021	Change to update_code.py in order to retain correct file permissions Add ChangeLog History document
10/10/2021	1.2	101021	1.0	031021	MQTT Nodes bug fix
12/10/2021	1.2	121021	1.0	031021	Bug Fix – move_files.py to fix version and build update to system table. Add pkill to maxair sudoers.d file (Note : added to setup .php but will require manual update to /etc/sudoers.d/maxair to add 'www-data ALL=(ALL) NOPASSWD:/bin/pkill'
13/10/2021	1.3	131021	1.0	031021	Add Support for MQTT Devices
15/10/2021	1.3	151021	1.0	031021	Bug Fix to display Fahrenheit temperatures in Boost and Override Bug Fix display Boost and Override icons for both cyclic and button modes
17/10/2021	1.3	171021	1.0	031021	Bug Fix to model.php mode settings vale corrected for Button Control modes.
18/10/2021	1.3	181021	1.0	031021	Update to scheduling to not display Sunrise/Sunset options if Openwaether has not updated in the last 24 hours. Addition of Slovakian language file (thanks to Mr.T) Added support for MQTT sensors sending data in a nested JSON format

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19/10/2021	1.3	191021	1.0	191021	Enable placement of selected Onetouch buttons on either Home or Onetouch screen
20/10/2021	1.3	201021	1.0	191021	Working in Fahrenheit Bug Fix for deadband temperature and to display cut-in and cut-out temperatures in Fahrenheit.
21/10/2021	1.3	211021	1.0	191021	Add GUI for Button page selection. Move db-cleanup.php interval values to new table db_cleanup.
22/10/2021	1.3	221021	1.0	191021	Bug Fix de.php error at line 176 Update to ajax.php and model.php to use language file for all labels. Update to Slovakian language file.
25/10/2021	1.3	251021	1.0	191021	Check for messages_in record. Split System Configuration menu and add new System Maintenance menu. Add GUI for db_cleanup table Add new table 'graphs' to allow selection of graph menus. Add GUI for modification of table 'graphs'. Update ajax.php to use language files
26/10/2021	1.3	261021	1.0	261021	Update to notice.py to enable SMTP Port to be set, for SSL or non-encrypted operation. Update to E-Mail GUI.
27/10/2021	1.3	271021	1.0	261021	Fix for notice.py when interval is set to 0. Fix for start_backup.py to use correct FROM, TO addresses.
28/10/2021	1.3	281021	1.0	281021	Add battery level and threshold values to display output. Disable PiConnect option in Settings. Tidy-up system table for updates, use single field 'repository' to point to the GitHub repository. Add GUI to enable change. Change update_code.py to use repository value from system Table.
28/10/2021	1.3	281021	1.0	281021	Bug Fix model.php, not updating Alert settings. Missed update_code.py in #257 Update to request.js when using document.getElementsByTagName("input") or that it operates within a DIV rather than over the whole of model.php
30/10/2021	1.3	301021	1.0	301021	Improvement to Repository selection.

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31/10/2021	1.3	311021	1.0	311021	Tidy-up Repository selection, everything now contained in a single table 'repository' rather than using 'fork' and 'system' table. Bug Fix 200921.sql. Update to setup.php to enable re-install when database already exists.
01/11/2021	1.3	011121	1.0	311021	Further improvement to setup.php for when installing where no previous database copy exists.
04/11/2021	1.3	041121	1.0	311021	Use 20% wider buttons when de or sk language files are in use. Allow creation of dummy controller device (for systems which do not use a zone controller). Bug Fix for Reboot and Shutdown – use Python3 rather than Python2.
06/11/2021	1.3	061121	1.0	061121	Update to allow CPU Temperature at which notice is sent.
07/11/2021	1.3	071121	1.0	061121	Update to allow operation of gateway.py when no physical gateway exists (eg for systems with GPIO relays and 1-wire sensors).
08/11/2021	1.3	081121	1.0	061121	Bug Fix for homelist.php, not showing correct temperature for add=on typ zones.
09/11/2021	1.3	091121	1.0	061121	Update to sk language file Bug Fix to System Controller model.php to display currently selected relay correctly in the dropdown lists for heat, cool and fan relays. Documentation – Gateway Types and Setup
11/11/2021	1.3	111121	1.0	061121	Update ajax.php, modify Services menu to remove pihome_mqtt.service and replace with HA_integration.service.
12/11/2021	1.3	121121	1.0	061121	Update to Slovakian language file, thank you Mr.T. Bug fix gateway.py not updating last_seen for MQTT sensors.
13/11/2021	1.3	131121	1.0	061121	Bug Fix ajax.php not selecting set Type value when in Edit MQTT Connection.
15/11/2021	1.3	151121	1.0	061121	Add documentation for MQTT Connection Setup and Configuration.
16/11/2021	1.3	161121	1.0	161121	Change GPIO Output type gateway to Virtual as it better reflects its use.

Date	Version	Build	DB Version	DB Build	ChangeLog
18/11/2021	1.3	181121	1.0	161121	For SWITCH type zone, update home screen status on button press.
21/11/2021	1.3	211121	1.0	211121	Force gateway script to exit if MQTT disconnects. setup.php will create a 'Virtual' gateway as default. Bug Fixes for HVAC Mode operation. Update to Boiler and HVAC Setup Guides.
24/11/2021	1.3	241121	1.0	211121	Various documentation updates. controller.php additional error trapping (no functional change).
25/11/2021	1.3	251121	1.0	211121	Enable graphing of sensor data when in HVAC mode.
27/11/2021	1.4	271121	1.0	261121	Introduce new zone category HVAC-M to support multi-zone HVAC systems. Introduce 3 timer modes for HVAC systems, HEAT, COOL and AUTO. Add hvac_relays_state to table system_controller to enable home screen status updates of system controller button. Change 'look' of Modes button menu to fit extra line of text. Bug Fix schedulelist.php not showing not included zones correctly.
02/12/2021	1.4	021221	1.0	261121	Update sb-admin-2.css to add space above button.
04/12/2021	1.4	041221	1.0	261121	Enable swapping of heating and Hot Water graph positions.
08/12/2021	1.4	081221	1.0	261121	Bug Fix HVAC Mode, cool and fan relays were not being added to the messages_out queue.
13/12/2021	1.4	131221	1.0	261121	Do not process zone overrun until a controller_zone_logs record exists.
15/12/2021	1.4	151221	1.0	261121	Bug Fix – Time Zone change will force a restart of gateway.py and if required gpio_ds18b20.py model.php correct spelling for Timezone Europe/Kiev Documentation update MQTT Setup Guide.
17/12/2021	1.4	171221	1.0	261121	Remove remaining instances of MySQL Now() function.
19/12/2021	1.4	191221	1.0	261121	Bug Fix - controller.php, count controller_zone_logs record count.

Date	Version	Build	DB Version	DB Build	ChangeLog
21/12/2021	1.4	211221	1.0	261121	Encrypted SMTP password stored in database. Encrypt MQTT connection password. Added password decryption to gateway.py(MQTT password), start_backup.py and notice.py, Added notice.py (disabled) to jobs table.
22/12/2021	1.4	221221	1.0	221221	Bug Fix for Override function, plus documentation.
23/12/2021	1.4	231221	1.0	221221	Bug Fix for start_backup.py and notice.py, missing newline before HOST =. Bug Fix for zone.php when more than 2 relays are attached.
24/12/2021	1.4	241221	1.0	221221	Bug Fix Email and MQTT re-encrypting already encrypted passwords, when record re-saved.
01/01/2022	1.4	010122	1.0	010122	New Feature to enable an start time offset to be applied to any selected schedule.
02/01/2022	1.4	020122	1.0	010122	Add Start Time Offset value to Offset button, when active. Fix button title font for One Touch buttons.
03/01/2022	1.4	030122	1.0	010122	Limit Start Time Offset to Maximum value when control temperature is less than low limit
05/01/2022	1.4	050122	1.0	010122	Add GPIO pin mapping for Orange Pi 3 and Orange Pi 3 LTS. Add Fahrenheit temperature span to Add Offset modal.
09/01/2022	1.4	090122	1.0	010122	Bug Fix for HA_HVAC_integration.py, decrypt MQTT_PASSWORD. Add documentation for Zigbee2mqtt device connection.
10/01/2022	1.4	100122	1.0	010122	Supress Sunset/Sunrise option for Night Climate scheduling. Add documentation for Night Climate Scheduling.
12/01/2022	1.4	120122	1.0	010122	Add documentation for Orange Pi 3 LTS. Change which documentation dropdowns show Night Climate Scheduling.
14/01/2022	1.4	140122	1.0	010122	Bug Fix - HA_HVAC_integration.py, set system controller mode.

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15/01/2022	1.5	150122	1.0	010122	Add new feature 'Pump Relays' for control of external pumps. Update zone_view to show relays.type field.
17/01/2022	1.5	170122	1.0	010122	Bug Fix for db.php, missing field when adding new controller.
21/01/2022	1.6	210122	1.0	210122	New Feature – add Email notification is sensor values are above or below pre-set values. Bug Fix for zone.php, issue with sp_deadband when converting to Fahrenheit.
23/01/2022	1.6	230122	1.0	230122	Remove Weather Factoring from HVAC mode. Make Weather Factoring optional for Boiler Mode.
24/01/2022	1.6	240122	1.0	240122	Allow selection of sensor to be used for Weather Factoring.
25/01/2022	1.6	240122	1.0	240122	Add missing notice.py for commit #304.
26/01/2022	1.6	260122	1.0	240122	gateway.py - apply Relay Trigger setting to MQTT type relays.
27/01/2022	1.6	270122	1.0	240122	Bug Fix – scheduling.php, fix for night climate update to operate on the correct record id.
28/01/2022	1.6	280122	1.0	240122	Bug Fix – Night Climate tile Status indicator not showing correct colour.
29/01/2022	1.6	290122	1.0	240122	Maximum Operating Time and Hysteresis Time removed from Zone GUI. Note disabled in the GUI, database fields will be populated with default values, in case it is decided to reimplement at some future date.
30/01/2022	1.6	300122	1.0	240122	Bug Fix – getTemperature.php not using the correct node_id when accessing messages_in table. Move legacy database utility files into a new legacy folder within MySQL_Database folder. Bug Fix – gateway.py, only try and retrieve trigger levels for relay nodes.
31/01/2022	1.6	310122	1.0	240122	Bug Fix –schedulelist.php, sunset/sunset offsets not being retrieved from the database.
01/02/2022	1.6	010222	1.0	240122	Bug Fix – sw_install.py and HomeAssistant/install.sh
02/02/2022	1.6	020222	1.0	240122	Add documentation for Home Assistant Integration.
03/02/2022	1.6	030222	1.0	240122	Bug Fix for sensor.php, not updating correctly.

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04/02/2022	1.6	040222	1.0	240122	Update to gateway.py, detect_chip_board.py and system_c.php to enable them to work with boards that do not support Adafruit Blinka for GPIO functionality. Note:- GPIO is disabled for these boards.
06/02/2022	1.6	060222	1.0	240122	Bug Fix – zone.php - enable editing of Boost Console Id Bug Fix – zone.php – only allow selection of unallocated sensors. Bug Fix – zone.php – fix displaying of unwanted fields Bug Fix – homekit/config_jason.py – reflect new database structure.
07/02/2022	1.6	070222	1.0	240122	Update to the Homekit add-on to remove the update function from within controller.php and replace it with a python script, which will be installed as a service as part of the overall Homebridge installation.
08/02/2022	1.6	080222	1.0	240122	Bug Fix – zone.php, missing sensor when in edit mode.
09/02/2022	1.6	090222	1.0	240122	Update to HomeKit add-on and Home Assistant Integration documentation.
09/02/2022	1.6	090222_2	1.0	240122	Update to HomeKit add-on. New api, thermostatscript.php to support Homebridge-http-webhooks thermostat. Home Assistant Integration documentation.
10/02/2022	1.6	100222	1.0	240122	Update to webhooks.py to handle outlets type and to reflect MaxAir Boost and Switch Zone status back to Homebridge screen.
11/02/2022	1.6	110222	1.0	240122	Bug Fix – notice.py, not clearing messages when notice_interval = 0
11/02/2022	1.6	110222	1.0	110222	Away Scheduling, create a single schedule which will be executed when 'Away' is enabled.
11/02/2022	1.6	110222+2	1.0	110222_2	Bug Fix – controller.php to fix issues with logs, introduced in #325 Bug Fix – 110222.sql re-order queries

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12/02/2022	1.6	120222	1.0	110222_2	Update to Away function so that it will operate irrespective of current Mode setting. Change to controller.php to use colour indication is schedule name is running or idle. Add documentation to describe Away Function. Add document to describe Zone Mode numbering.
13/02/2022	1.6	130222	1.0	110222_2	Disable Away function if in OFF mode. Use Away icon in zone tile if an Away schedule is running.
15/02/2022	1.6	150222	1.0	110222_2	Bug Fix – scheduling.php, coop option not displayed when working in menu type mode selection. Update HA Integration documentation.
16/02/2022	1.6	160222	1.0	110222_2	Add coop indicator to hone screen zone modal. Update to controller.php for switch zones, enable override while a schedule is running. Add zone name to controller.php display and re-arrange fields in zone displays.
16/02/2022	1.6	160222	1.0	110222_2	Updates to Switch type zone control using Amazon Echo and Home screen button to toggle state.
17/02/2022	1.6	170222	1.0	110222_2	Further updates to Switch type zone control using Amazon Echo and Home screen button to toggle state.
18/02/2022	1.6	180222	1.0	110222_2	Performance improvement to Home screen load time by replacing schedule_daily_time_zone_view with a query.
20/02/2022	1.6	200222	1.0	110222_2	Bug Fix 1 db.php missing field in database update for system_controller table. Change to controller.php to allow changes to HTTP Tasmota switch state to be reflected in GUI.
22/02/2022	1.6	220222	1.0	110222_2	Performance updates to check schedule routine. Removal of screen print functions from controller.php to improve performance. Updates to Away Scheduling.

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23/02/2022	1.6	220222	1.0	230222	Update to schedule_daily_time_zone_view to improve performance.
24/02/2022	1.6	240222	1.0	240222	Bug Fix - schedulelist.php to display sunrise/sunset icon in schedule list, if enabled. Performance improvement opening settingslist.php.
25/02/2022	1.6	250222	1.0	240222	Bug Fix – scheduling.php – not getting correct time zone status when editing. Fix for gateway.py when HTTP relay cannot be reached by IP address
28/02/2022	1.6	280222	1.0	240222	Bug Fix – Home screen displaying the wrong Away status icon when Away enabled, with no associated Away schedule.
03/03/2022	1.6	030322	1.0	240222	Update to RFM96 Sketches to fix issue with IRQ pin definition when using MySensors ver 2.3.2 library.
06/03/2022	1.6	060322	1.0	240222	Update to the Sensors option in the System Status menu. The last date time value is now a button, which when clicked on will display the timestamps for all sensors attached to the node over the last 24 hours.
07/03/2022	1.6	070322	1.0	240222	Update to the Sensors option in the System Status menu to add average count per sensor per hour.
08/03/2022	1.6	080322	1.0	080322	Update to Boost modal to allow deletion of zone boost setting when there is more than on setting present.
09/03/2022	1.6	090322	1.0	080322	Bug Fix – controller on times, for home screen and usage graphs.
10/03/2022	1.6	100322	1.0	080322	Add gateway sketch for the wireless-tag WT32_ETH01 combined ESP32 WiFi and Ethernet board. Sketch is configurable for NRF24L01, RFM69 and RFM95 radio modules. Implements WiFiManager and supports Ethernet only working mode.
10/03/2022	1.6	100322_2	1.0	080322	Modification to gateway sketch for the wireless-tag WT32_ETH01 to add option to disable the ethernet interface using a jumper.
11/03/2022	1.6	110322	1.0	080322	Simplification of the gateway sketch for the wireless-tag WT32_ETH01

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12/03/2022	1.6	120322	1.0	080322	Simplification of the gateway sketch for the wireless-tag WT32_ETH01 by redefining SPi pins within the sketch and starting the SPi interface before the MySensors radio.
18/03/2022	1.61	180322	1.0	080322	Bug Fix - MaxAir_GatewayW5100_v100.ino change MY_RADIO_NRF24 to MY_RADIO_RF24. Bug Fix gateway.py, change if is syntax at line 517. Update to update_code.py to fix issue when creating a new directory which contains no files but only sub-directories.
29/03/2022	1.7	290322	1.0	290322	Revised Settings Menu option, using a dropdown selection list, to improve performance. Update – All documentation referencing the Settings Menu. Bug Fix – updating Boost Settings.
30/03/2022	1.7	300322	1.0	290322	Improvement in graph load time.
31/03/2022	1.7	310322	1.0	290322	Further improvement in graph load times. Add waiting message when loading graphs.
01/04/2022	1.7	010422	1.0	290322	Bug Fix – Daily usage graphs set x-axis to local time.
08/04/2022	1.80	080422	1.0	030422	New Feature – Display graphs when Zone or standalone sensor tile is clicked. New Feature - A revised Home screen, which no longer auto-refreshes. The data and indicator fields on the screen are updated individually once every second. The result is that now any pop-up windows that are opened, will remain displayed until closed by the user. Update to Settings/Sensors Status to display additional information. WT32-ETH01 Gateway sketch – swap functions on pins 36 and 39 to match PCB configuration. Enable status indicators update on OneTouch page without page refresh.

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09/04/2022	1.80	090422	1.0	030422	Weather data and Running Time not updating on page footer. Update to the Setting/System Status/Sensors popup to update the temperature values in real time.
10/04/2022	1.80	100422	1.0	030422	Bug Fix – Standalone sensors displayed before System Controller not updating. Update to make popup modal windows scrollable. Bug Fix – OneTouch Offset button not working.
11/04/2022	1.80	110422	1.0	030422	Bug Fix – Controller 'last_seen' datetime not updating on controller state change.
12/04/2022	1.80	120422	1.0	120422	Delay opening of Plotly graphs until modal window opens, to improve sizing on mobile devices. Update to the Home and OneTouch page refresh routines to allow the refresh period to be varied. A new Settings/System Maintenance/Page Refresh option has been added to allow the refresh period to be set between 1 and 15 seconds. Update to the database table 'system' to add a new field 'page_refresh'.
13/04/2022	1.80	130422	1.0	120422	Home page refresh 'hanging' when trying to update fields where no data had changed.
15/04/2022	1.80	150422	1.0	150422	All page refresh removed and replaced with page data updates at a configurable refresh rate. All Ajax data refresh PHP modules combined in a new PHP module 'ajax_fetch_data.php'. Zone popup disable schedule feature updated to enable toggling of the schedule enabled/disabled state. New column 'disabled' added to table 'schedule_daily_time_zone' to record enabled/disabled state. Bug Fix – schedule listing temperature circle not showing correct data.
16/04/2022	1.80	160422	1.0	150422	Bug Fix – Correct date/time positioning on schedule list page. Change schedule disabled colour to blue in zone popup.

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17/04/2022	1.80	170422	1.0	150422	schedule list not displaying correctly and initial screen being loaded twice. Add disabled 'D' marker to schedule list where the schedule is either not enabled or all linked schedules have been disabled from the associated zone popups
19/04/2022	1.80	190422	1.0	150422	Bug Fix – schedule list not displaying correctly, re-apply #367 fix removed in error #368. Update to gateway.py for MQTT sensors, on update message_in queue on data change or every hour if no change. Update login.py banner script to Python3.
20/04/2022	1.80	200422	1.0	200422	Update to allow all sensor types to be configured to report either continuously or only on data change, with a variable timeout.
21/04/2022	1.80	210422	1.0	200422	Update to sensor reading timeout function, to use the last recorded sensor value as the current data value. Documentation update.
21/04/2022	1.80	210422_1	1.0	200422	Bug Fix gpio_ds18b20.py. Popup graphs display either Temperature or Humidity on y axix.
23/04/2022	1.80	220423	1.0	230422	Reimplement on-change feature for GPIO sensors. Update – add option to set the sensor resolution.
23/04/2022	1.80	230422_1	1.0	230422	Cosmetic change to the Sensors GUI to hide field where applicable.
26/04/2022	1.80	260422	1.0	260422	Add an option to make individual user sessions persistent, rather than as currently they expire after 24 minutes of inactivity, default is non-persistent. Bug Fix to scheduling.php
28/04/2022	1.80	280422	1.0	260422	Update to the WT32-ETH01 Gateway sketch for when using NRF24L01 radio modules and correction to LED pin assignments.

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02/05/2022	1.80	020522	1.0	260422	Bug Fix index.php to fix long standing error where trying to write lastlogin data to wrong table. Move WT32-ETH01 gateway sketch to nRF24L01 and RFM96 folders, with correct radio selection set. Update to refresh_session.php, to rewrite cookies. Bug Fix user_accounts.php - not saving enabled state when editing logged-on account.
03/05/2022	1.80	030522	1.0	260422	Replace header logged on user name with 'Session Timed Out' when a non-persistent session terminates.
04/05/2022	1.80	040522	1.0	040522	Further enhancement of the persistent session feature.
05/05/2022	1.80	050522	1.0	040522	Block user from applying code updates before applying any pending database updates.
12/05/2022	1.80	120522	1.0	040522	Improvement to disable/enable schedule within zone popup – update indicator and keep popup open until 'Close' button clicked.
16/05/2022	1.80	160522	1.0	160522	Bug Fix - Weather not showing temperature on header. Add flexibility to Repository selection data.
17/05/2022	1.80	160522	1.0	170522	Database change for future possible update
02/06/2022	1.80	020622	1.0	170522	Bug Fix – gateway.py not saving MQTT type humidity sensor values to zone_graphs table
09/06/2022	2.02	090622	1.0	060622	Major update from version 1.81 to version 2.02. Move to Bootstrap 5.2.1beta. Introduction of colour themes.
10/06/2022	2.02	100622	1.0	070622	Update Backup documentation
11/06/2022	2.02	110622	1.0	110622	Add Burnt Orange Theme Add documentation for Themes Add documentation of Status Indicator Icon descriptions Change colour of Hysteresis status indicator to make bolder.

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12/06/2022	2.02	120622	1.0	110622	Add missing logo for the Burnt Orange theme. Remove reference to Ionicons. Manual Backup will use Auto Backup destination if set or else will use /var/www/MySQL_Database/database _backups
13/06/2022	2.02	130622	1.0	110622	Bug Fix - start_backup.py to allow backups to networked folders.
14/06/2022	2.02	140622	1.0	110622	Bug Fix - start_backup.py resolve folder permission issue
15/06/2022	2.02	150622	1.0	110622	Bug Fix – boostlist.php, header colour
16/06/2022	2.02	160622	1.0	160622	Rename zone_graphs table to sensor_graphs. Delete all sensor_graphs table records older than 24 hours.
21/06/2022	2.02	210622	1.0	160622	Implement Database Restore menu option.
22/06/2022	2.02	220622	1.0	160622	Sort Documentation by Document Title.
24/06/2022	2.02	240622	1.0	160622	Add Sketch /nRF24L01/MaxAir_Temperature_Sens or_v035/MaxAir_Temperature_Sensor _v035.ino.
26/06/2022	2.02	260622	1.0	160622	Delete Arduino_Sketches/nRF24L01/Pi Home_Temperature_Sensor_v034 Bug Fix – setup.php, creation of initial version of the 'system' table.
27/06/2022	2.02	270622	1.0	270622	Bug Fix – sensor_limits.php, set theme colours correctly. Bug Fix – reset 'repository table to contain valid repository pointers.
28/06/2022	2.02	280622	1.0	280622	Bug Fix – chart_batteryusage.php, mask NULL bat_level values. Update to Auto Backup process to store last backup datetime in table 'auto_backup'. This change to ensure that a backup is not triggered by a system restart.
29/06/2022	2.02	290622	1.0	280622	Bug Fix – chart_addonusage.php, display correctly when node has multiple child ids, delete orphaned 'add_on_logs' start records before building graph data. Bug Fix – scheduling.php, set 'disabled' field in table 'schedule_daily_time_zone' table to be 0 by default.

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30/06/2022	2.02	300622	1.0	280622	Update – gateway.py – only update 'nodes' table 'min_val' on first time see node, this will allow changes from GUI to persist. Bug Fix – model.php, Zone Modal text positioning.
03/07/2022	2.02	030722	1.0	280622	Bug Fix – mqtt_device.php, submit error when adding or editing 'MQTT Sensor' type devices. Bug Fix – change 'Senor' to 'Sensor' in all language files.
04/07/2022	2.02	040722	1.0	280622	Updated Bug Fix – mqtt_device.php, submit error when adding or editing 'MQTT Sensor' type devices.
11/07/2022	2.02	110722	1.0	280622	Bug Fix – Update any relay linked entries in the messages_out table when the relay node or child ids are edited
11/07/2022	2.02	110722_2	1.0	280622	Add documentation to describe message queue usage.
15/07/2022	2.03	150722_2	1.0	150722	New Feature – add negative sensor control slope zone type, uses a sensor and relay/s to control zone based on a negative sensor gradient. Update Zone Type categories, add new category 'Controller, Binary Sensor and NO System Control'. Update Zone Type categories, re-word the two existing 'Controller, Sensor and NO System Control' categories.
16/07/2022	2.03	160722_2	1.0	150722	Bug Fix – Switch type zones not displaying status correctly. Update Zone Type documentation
20/07/2022	2.03	200722	1.0	200722	Update – Zone GUI allows selection of Sensor Type. Update – Remove Zone Category 6, replaced by using Category 1 or 5 and a Binary Sensor. Update – Modify controller.php, homelist.php and ajax_fetch_data.php to use zone category 1 or 5, with Binary sensor type, in place of Category 6.
20/07/2022	2.03	200722_2	1.0	200722	BUG FIX – controller.php extra ')' in if statement at line 1387.
21/07/2022	2.03	210722	1.0	200722	BUG FIX – controller.php missing ';' terminator at line 398.

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22/07/2022	2.03	220722	1.0	220722	Update to http_messages table processing to use 'zone_id' rather than 'zone_name', to improve flexibility.
23/07/2022	2.03	230722	1.0	230722	Further update to http_messages table processing to remove redundant column 'zone_name'. Bug Fix – zone.php, set footer colour correctly.
26/07/2022	2.04	260722	1.0	260722	New Feature – Implementation of 'Message Sensors'.
05/08/2022	2.04	050822	1.0	260722	Bug Fix – add missing folder '/var/www/cron/logs'. Bug Fix – 1-wire sensor documentation.
07/08/2022	2.05	070822	1.0	070822	New Feature – allow creation of sensors to capture data from an eBUS compliant interfaced boiler
29/08/2022	2.05	290822	1.0	070822	Bug Fix – gateway.py. Update eBUS sensor documentation
06/09/2022	2.05	060922	1.0	070822	Update – Create and destroy relay messages_out entries with relay addition or deletion (rather than create with zone creation).
08/09/2022	2.05	080922	1.0	070822	Bug Fix – settings.php, remove redundant read of table 'frost_protection' (table no longer exixts). Bug Fix – controller.php, add timeout when reading Tasmota switch manual button using HTTP.
09/09/2022	2.05	090922	1.0	070822	compatibility changes for PHP version 8.x Update – add pin mapping for Orangepi 4 LTS
13/09/2022	2.05	130922	1.0	070822	Bug Fix – homelist.php and cron/controller.php – display target temperature correctly for category 1 type zones Update – install symlink if required for boards running Orange Pi OS to enable Adafruit Platform Detect to identify the board.
22/09/2022	2.05	220922	1.0	070822	Bug Fix – model.php, zone_controller table referenced instead of zone_relays.

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23/09/2022	2.05	230922	1.0	230922	Update – Add new field 'n_id' to messages_out table (future implementation of Gateway Relay Controller). Update – relay.php to reflect database change.
27/09/2022	2.05	270922	1.0	230922	Bug Fix – settingslist.php to capture the last CPU temperature reading correctly. Bug Fix – zone.php, not correctly maintain the page format when additional controller relays added. Bug Fix – js/request.js, not returning correctly when zones deleted. Update – gateway.py, apply trigger setting to MySensors relays when the sketch version is greater the 0.34 Update – gateway.py, in-coming message check for node-id changed from check for 0 (interger) to "0" (string) to match payload variable type. Update – gateway.py, relay updates use new messages_out field 'n_id' in place of 'node_id' to cope with instances where two node table entries may have the same node_id (GPIO controller and Gateway controller).
02/10/2022	2.05	021022	1.0	230922	Bug Fix – zone.php, not capturing sensor_type_id in Edit mode.
03/10/2022	2.05	031022	1.0	230922	Update – controller.php, functions.php to allow the controller script to execute with minimal zone settings.
08/10/2022	2.05	081022	1.0	230922	Bug Fix – functions.php – schedule start and end times require an offset for both timezone and daylight-saving time. Bug Fix – mode.php and homelist.php, when working in HVAC mode with button mode selected the lower right legend not being displayed correctly.
09/10/2022	2.05	091022	1.0	230922	Bug Fix – controller.php, move initialization of $system_controller array to outside of the main control loop.
10/10/2022	2.05	101022	1.0	230922	Bug Fix – mode.php, missing set variable $system_controller_id = $row['id'];.

Date	Version	Build	DB Version	DB Build	ChangeLog
11/10/2022	2.06	111022	1.0	141022	Update – New option to allow Live Temperature control to be attached to any selected zone. Update – New option for Immersion and Cooling type zones to allow them to remain active and track to the zone's set default temperature when no schedule is active, until the next schedule becomes active.. Bug Fix – When the Mode is set to OFF all schedules and manual functions will be inoperative. Update – Remove table ebus_messages, replaced by sensor_messages.
18/10/2022	2.06	181022	1.0	141022	Bug Fix – gateway.py, when re-sync relays attached to the new combined gateway/controller, trigger not being applied. Update – WT32-ETH01 Gateway/Controller sketch.
20/10/2022	2.06	201022	1.0	201022	Update – Software Update processing – if a scheduler restart is required this is now handled within the script 'sw_install.py' rather than 'install.sh'.
21/10/2022	2.06	211022	1.0	201022	Enhancement – Optional Add-On software install of system image creation tools. New menu option to schedule creation of a system backup image file to a NAS drive. Bug Fix – sw_install.py use of space instead of tab. Bug Fix – model.php, initialise variable for software install status flag.
22/10/2022	2.06	221022	1.0	201022	Update – image-backup utility, use wildcard when checking root volume type for Armbian OS compatibility. Bug Fix – restore ebus_messages table.
22/10/2022	2.06	221022_2	1.0	201022	Only allow installation of Image Tools on systems running Raspian.
23/10/2022	2.06	231022	1.0	201022	Bug Fix – check_gw.php trying to retrieve process info when no process running.
26/10/2022	2.06	261022	1.0	201022	Bug Fix – zone.php, not updating the zone_id field in the messages_out table.

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02/11/2022	2.06	021122	1.0	201022	Bug Fix – HA_HVAC_integration.py, when none RPi boards do not process under voltage. Bug Fix – Home Assistant install requirements file requirements.txt. Documentation – 'Setup Guide Home Assistant Ingegration', add case where Mosquitto broker is already installed. Documentation – update ReadMe for WT32-ETH01 Gateway version 2.
06/11/2022	2.06	061122	1.0	061122	Bug Fix – In some instances the message_out table zone_id field is not populated correctly, this database update refreshes the data.
12/11/2022	2.06	121122	1.0	061122	bug: fix launching find_mygw instead of gateway
27/11/2022	2.06	271122	1.0	061122	Bug Fix - gpio_ds18b20.py, only process sensors which already have a database entry, code aligned with gateway.py.
27/11/2022	2.06	271122_2	1.0	061122	Update – holiday.php and holidayslist.php to apply theme colours correctly.
01/12/2022	2.06	011222	1.0	061122	Update – Add documentation for Holidays function. Bug Fix - relay.php and Arduino sketch for Gateway Controller, use distinct type id of 25.
07/12/2022	2.06	071222	1.0	061122	Update – sketch MaxAir_GatewayWT32_ETH01_v002.ino. Bug Fix - zone.php maintain default value not being captured or displayed correctly.
10/12/2022	2.06	101222	1.0	101222	Update – add new table 'relay_logs' to capture state changes sent to the relays. Update – gateway.py populate table 'relay_logs' whenever a state change is applied to a relay. Update – db_cleanup.php clear new table 'relay_logs' after a set interval.
13/12/2022	2.06	131222	1.0	131222	Update – new option in Settings/Device Configuration/Test Relays, allows the state of any 'created' relay to be toggled OFF/ON (System Controller operation is suspended whilst dialogue is active).

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19/12/2022	2.06	191222	1.0	131222	Update – ebus.py, implement 'Mode', 'Timeout', 'Resolution' and 'Correction Factor' for EBus type sensors. Update – controller.php, flag any zones that have missing sensors or relays and continue processing. Bug Fix – db.php, zone_delete function using wrong table name.
22/12/2022	2.06	221222	1.0	211222	Update – move_files.py, force restart of ebus.py if file updated. Bug Fix – change table 'system_control;er', field 'max_running_time' from type TINYINT to UNSIGNED TINYINT to match GUI maximum value of 180.
28/12/2022	2.06	281222	1.0	211222	Update – gateway.py improved error trapping.
29/12/2022	2.06	291222	1.0	211222	Bug Fix – db.php – processing add_on switch zone relays - $category variable not set. Bug Fix – missing sub-mode 8 added for max_running_time exceeded.
31/12/2022	2.06	311222	1.0	211222	Update – Enable STATE topic generation for MQTT Controller devices.
03/01/2023	2.06	030123	1.0	211222	Update - Enable STATE topic generation for MQTT Controller devices, where multiple relays are attached to the same MQTT controller.
11/01/2023	2.06	110123	1.0	211222	Bug Fix – gpio_ds18b20.py – remove test code left in place.
21/01/2023	2.07	210123	1.0	210123	New Feature – allow a delay time in seconds to be applied to any relay ON command.
23/01/2023	2.07	230123	1.0	210123	Update – Relays documentation for Lag Time. Update – gateway.py – suppress outgoing messages when relays are waiting for lag delay to expire.
24/01/2023	2.07	240123	1.0	210123	Bug Fix – gateway.py, relay initialization now used any lag delay settings.
25/01/2023	2.07	250123	1.0	210123	Update/Bug Fix – gateway.py, process all relays where 'sent'=0 in a single pass, rather than 1 relay per pass.
27/01/2023	2.07	270123	1.0	210123	Update – Pin_Dict.py, add GPIO support for OrangePi 5.

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30/01/2023	2.07	300123	1.0	210123	Update – PHP script 'apply_databse_updates.php' added to 'MySQL_Database' directory, used to apply missing database updates. Update – example databases – gateway changed from serial to virtual.
17/02/2023	2.07	170223	1.0	210123	Update – gateway.py to apply sensor correction factor for MQTT sensors. Update – check_gw.php cosmetic change to display text. Update – add new repository for Version 3.
23/02/2023	2.07	230223	1.0	210123	Bug Fix – onetouch.php – footer running time query using wrong table name and requires setting of system_controller_id variable.
25/02/2023	2.07	250223	1.0	210123	Update - onetouch.php to displav information message if LiveTemp is selected for a zone which is not in an active state.
26/02/2023	2.07	260223	1.0	210123	Update – homelist.php, db.php and request.js, improvement when clicking on an add-on zone tile to toggle the zone ON/OFF state.
28/02/2023	2.07	280223	1.0	210123	Bug Fix – db.php Add New Job not closing dialogue window.
01/03/2023	2.07	010323	1.0	010323	Update – add new column 'status-prev' to table 'zone_current_state'. Used to improve operation od 'switch' type zones when state is changed by clicking on the zone tile. Associated changes to 'controller.php' and 'gateway.py'.
05/03/2023	2.07	050323	1.0	010323	Bug Fix – controller.php, syntax error in query definition for "INSERT INTO zone_current_state …….
09/03/2023	2.07	090323	1.0	090323	Update – controller.php, db.php, model.php and request.js to improve operation of the 'Test Relays feature. Update – Add documentation for combined Gateway/Controller, with Relay Adapter board.
10/03/2023	2.07	100323	1.0	090323	Update – gateway.py, bypass any set relay lag time when using the 'Test Relays' option.

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24/03/2023	3.00	240323	1.0	230323	Update – Implement Version 3.00. Main change is to replace 'controller.php' with 'controller.py'. 'controller.py' is a continuously running script rather than a scheduled task, this improves overall responsiveness of the GUI. A new watchdog job 'check_sc.php' is implemented and added to the job scheduler to restart the new 'controller.py' script. Update – changes to scheduling so that the current schedule state and its 'id' are stored in the 'zone_current_state' table, where updates are implemented in the 'controller.py' script, function 'get_schedule_status' in 'st_inc/functions.php' is no longer used and is replaced by a function within script 'ccontroller.py'. Update –sensor current values are stored on update within 2 new fields in table 'sensors', the Home screen GUI retrieves these values, rather than reading the 'messages_in' table. Update – for the Gateway/Controller hardware the 'heartbeat timer' timeout value is set in the Gateway GUI. Update –update example databases to Build 210323. Update –create new Settings option 'Settings/System Status/Scripts Status' to display information relating to the 'gateway.py' and 'controller.py' scripts. Bug Fixes – shutdown and reboot process changed to check flags in the 'system' table, new scheduler job added to control script 'shutdown_reboot.py'. Bug Fixes – various fixes to enable the 'gateway.py' and 'controller.py' scripts to run without error where the system has not yet been fully configured.

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24/03/2023	3.00	240323	1.0	230323	Update to Bootstrap Version 5.2.3 Update to Bootstrap Icons Version 10.1.3
31/03/2023	3.00	310323	1.0	310323	Bug Fix – Add On zones do toggle from the GUI, fix to request.js and db.php. Tidy Up – ajax_fetch_data.php. use existing variable in place of table reference. Update – new field 'test_run+time' added to 'system' table, to be used in future release to run MaxAir at an artificial time as a way to test scheduling. Update – zone and boiler controller NRF24L01 sketches and gateway.py to add 'heartbeat' feature.
01/04/2023	3.00	010423	1.0	310323	New Feature – A new option Settings/System Configuration/Schedule Test allows you to select a date and time to be used by MaxAir as its current time, MaxAir will move to this date and time and then virtual time will progress forwards from this start point. The time displayed on the toolbar will be annotated to indicate that the system is operating in a TEST MODE. Update – Icon changes, change MQTT Settings button to display icon, change System Controller Settings dropdown and button icon.
05/04/2023	3.00	050423	1.0	310323	Bug Fix – Auto Backup when using a 1 DAY frequency. Update – update to various button icons. Bug Fix – controller.py not capturing schedule count per zone correctly.
06/04/2023	3.00	060423	1.0	310323	Update – apply schedule and test mode run time updates to deprecated 'controller.php', which is kept as a 'fallback' option.
09/04/2023	3.00	090423	1.0	310323	Bug Fix – auto_backup.py fix for 1 DAY frequency. Bug Fix – controller.py, set time_id = 0 when no schedule is found. Update – gateway.py, use dictionary to hold heartbeat timers for multiple relay controller.

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10/04/2023	3.00	100423	1.0	310323	Bug Fix – gateway.py, convert MQTT payload to float type for cases where no 'Attribute' is used.
12/04/2023	3.00	120423	1.0	310323	Update – Allow custom tile messages for Binary Sensors, rather the simply 'ON' or 'OFF'.
16/04/2023	3.00	160423	1.0	310323	Bug Fix - controller.py, weather factoring when using a user sensor
04/09/2023	3.00	040923	1.0	040923	Update – Added a new option 'Settings/Device Configuration/Hide Sel/Rel'. Administrators can select to hide stand-alone Sensors and Add-On Zones on the Home screen for non-admin users.
08/09/2023	3.00	080923	1.0	040923	Update – Allow unallocated sensor to be associated with a SWITCH type zone, so that the sensor tile is displayed adjacent to the add-on zone tile.
21/09/2023	3.00	210923	1.0	040923	Update – gateway.py- improvement in processing of MQTT sensors. Update - New option Settings/Device Configuration/Hide Sen/Rel to allow Sensors and/or Relays to be hiden on the Home Screen for a particular user.
25/09/2023	3.00	250923	1.0	250923	Further Update – gateway.py- improvement in processing of MQTT sensors. Update – table 'nodes_battery', change field 'node_id' from int(11) to char(50), to match 'nodes' table definition.

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08/10/2023	3.00	081023	1.0	070923	New Feature – gateway.py, notice.py, model.php, mqtt_device.php and database update 260923.sql, to enable the setting of 'Notice Interval' and 'Minimum Value' on the MQTT Devices screen. Update – further updates to MQTT device handling to enable Battery graphs and Sensor/Relay loss of communication indications. Bug Fix – table 'http_messages' correct 'node_id' field format. Bug Fix – model.php, db.php and request.js – selection of sensors to graph query correction. Bug Fix – homelist.php – 'Add-On' type zones to only display a single tile, even when multiple controllers are attached. Bug Fix - model.php – fix error where 'unallocated' sensors are not detected correctly. Bug Fix – model.php – fix error where 'unallocated' type 1 relays are not detected correctly.
27/10/2023	3.00	271023	1.0	070923	Update – create local Python module 'schedule.py' and remove check in '/var/www/cron/install_jobs.sh'. Update –Image Tools.
30/10/2023	3.00	301023	1.0	070923	Update – nmcli_reboot_wifi.sh – retrieve connection name using the 'nmcli con' command.
07/11/2023	3.00	071123	1.0	070923	Bug Fix – setup.php – creation of initial gateway record not adding a default value for field 'heartbeat_timeout'.

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10/11/2023	3.00	101123	1.0	070923	Update – gateway.py – Python module 'telnetlib' (used to send and receive TCP data packets) is deprecated in Python version 3.11 and will be removed in version 3.13. Replaced with socket.sendall and socket.recv(1). As there is no direct replacement for telnetlib.readline(), a separate program thread has been created to read the socket stream until a newline character has been detected and compose a message queue, which is read line by line by the main program thread. Update – gateway.py – a logfile to monitor incoming 'heartbeat' messages is created at '/var/www/logs/gateway_heartbeat.log'. The logfile is automatically emptied at midnight each day.