

uPHP Reference

uPHP functions have an identical syntax to PHP functions in most cases. Below is a list of all the functions that have been implemented.

Click on the function name for further details:

| FUNCTION NAME | PARAMETER(S) | RETURN | DESCRIPTION |
|----------------------------------|---|---|---|
| adc_read | int channel | int ADC value | Read an onboard ADC channel |
| array | mixed values ... | array | Create an array , with optional values |
| array_key | array , int index | string key | Return the key for an array index |
| array_keys | array with key/value pairs | array of keys | Return keys for an array that has key/value pairs |
| base64_decode | string base64 | string decoded or int 0 | Decode a base64-encoded string |
| base64_encode | string to encode | string base64 or int 0 | Return the base64-encoded version of a string |
| call_user_func | string function_name , mixed parameters ... | mixed result | Call a user defined function with optional parameters |
| charat | string , int index | int ASCII code | Return the ASCII code for a character in a string at an index |
| chdir | string directory | int 0=OK | Change the current directory |
| chr | int code | string 1 character | Return the character for an ASCII code |
| cos | number radian_angle | float cosine | Return cosine of a radian_angle |
| debug | string output | | Print to debug output |
| debugout | int 0 or 1 | | Enable or disable debug messages |
| die | | | Kill the script |
| disk_free_space | | int KiloBytes | Return free space on microSD card |
| disk_total_space | | int KiloBytes | Return total space on microSD card |
| error_reporting | int verbosity | | Set the debug output level |
| exec | string script , int delay | | Run a script with an optional delay |
| exec_action | mixed action | int 1=OK | Triggers a manually executable action by id or name |
| explode | string , string delimiter | array | Turn a string into an array |
| f485open | int baud , int parity | int handle or 0 | Open the RS-485 port at the specified baud rate and parity |
| fclose | int handle | | Close a file, stream or socket |
| feof | int handle | int 1 or 0 | Test if no more data is available in a file, stream or socket |
| fgets | int handle , int size | string or int -1 | Return a single line from a file, stream or socket, with optional size limit |

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|----------------------------------|---|--|--|
| file_exists | string filename | int 1 or 0 | Check if a file exists |
| filesize | string filename or int handle | int bytes | Return the size of a file, or the number of unread bytes in a stream or socket |
| findfirst | string pattern , int attributes | array first file found | Start searching the current folder for files matching a pattern and attributes |
| findnext | | array next file found | Return next matching file information (after a findfirst) |
| firmwareupdate | | | Initiate a firmware update sequence and reboot the device |
| floatval | mixed value | float value or int 0/1 | Return the float value of a number or string |
| flush | socket socket to flush | | Flush current output or socket to the browser |
| fopen | string filename , string mode | int handle or 0 | Open a file for reading or writing |
| fread | int handle , int bytes | string or int 0 | Read bytes from a file, stream or socket |
| freemem | | int bytes | Return free memory space |
| freestack | | int bytes | Return free stack space |
| fseek | int handle , int offset , int whence | | Position the file pointer in an open file |
| fseropen | int baud , int blocking , int invert , int parity | int handle or 0 | Open the serial port at the specified baud rate with optional parameters |
| fsockopen | string host , int port , int timeout | int handle or 0 | Open an internet socket connection with optional timeout |
| ftell | int handle | int position | Return the current position of a file read/write pointer |
| function_exists | string function_name | int 1 or 0 | Check if a function exists (custom or native) |
| fwrite | int handle , mixed data , int length | int bytes written or -1 | Write data to a file, stream or socket |
| get3gstat | | array | Get cellular data connection status information |
| getcwd | | string path | Get the current directory |
| getethstat | | array | Get Ethernet connection status information |
| getmac | | string MAC | Get the Wattmon's MAC address |
| getusbstat | | array | Get USB host status information |
| header | string header_data | | Add to HTTP header |
| htmlspecialchars | string data | string converted | Convert special characters for display in HTML |
| ieee754toint | float value | int representation | Convert a float value to an IEEE-754 encoded integer (32 bit) |
| implode | array , string delimiter | string | Turn an array into a string |

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|----------------------------------|---|---------------------------------------|---|
| <code>include</code> | <code>string filename</code> | | Include a file within the current script at the current location |
| <code>indexed_array</code> | <code>int type</code> , <code>int size</code> | <code>array</code> | Create an <code>array</code> of a specific <code>type</code> and <code>size</code> |
| <code>ini_get</code> | <code>string filename</code> , <code>string section</code> , <code>string key</code> , <code>mixed default</code> | <code>mixed value</code> | Get a value from an INI file |
| <code>ini_get_array</code> | <code>string filename</code> , <code>string section</code> | <code>array</code> | Get a group of parameters from an INI file as an <code>array</code> |
| <code>ini_put_array</code> | <code>string filename</code> , <code>array data</code> , <code>string section</code> | | Write a group of parameters to an INI file from an <code>array</code> |
| <code>ini_set</code> | <code>string filename</code> , <code>string section</code> , <code>string key</code> , <code>mixed value</code> | <code>int 1=OK</code> | Set a <code>value</code> in an INI file |
| <code>inttoieee754</code> | <code>int representation</code> | <code>float value</code> | Convert an IEEE-754 encoded <code>integer representation</code> (32 bit) to a <code>float</code> |
| <code>intval</code> | <code>mixed value</code> | <code>int value</code> | Return the <code>integer</code> value of a <code>number</code> or <code>string</code> |
| <code>is_array</code> | <code>mixed variable</code> | <code>int 1 or 0</code> | Check if a <code>variable</code> is an <code>array</code> |
| <code>is_float</code> | <code>mixed variable</code> | <code>int 1 or 0</code> | Check if a <code>variable</code> is a <code>float</code> |
| <code>is_int</code> | <code>mixed variable</code> | <code>int 1 or 0</code> | Check if a <code>variable</code> is an <code>integer</code> |
| <code>is_numeric</code> | <code>mixed value</code> | <code>int 1 or 0</code> | Check if a <code>value</code> is numeric (<code>int</code> , <code>float</code> or numeric <code>string</code>) |
| <code>is_string</code> | <code>mixed variable</code> | <code>int 1 or 0</code> | Check if a <code>variable</code> is a <code>string</code> |
| <code>isset</code> | <code>mixed variable</code> | <code>int 1 or 0</code> | Check if a <code>variable</code> exists |
| <code>json_encode</code> | <code>array</code> , <code>int method</code> | <code>string</code> | JSON encode an <code>array</code> into a <code>string</code> , with optional <code>method</code> |
| <code>ln</code> | <code>number number</code> | <code>float log_e</code> | Return the natural logarithm of a <code>number</code> |
| <code>log</code> | <code>string output</code> , <code>string file</code> | | Print to the System Log (or optional <code>file</code>) |
| <code>log10</code> | <code>number number</code> | <code>float log₁₀</code> | Return the base 10 logarithm of a <code>number</code> |
| <code>mail</code> | <code>string recipient</code> , <code>string subject</code> , <code>string body</code> | <code>int 0 or SMTP error code</code> | Send an email [deprecated] |
| <code>max_execution_time</code> | <code>int seconds</code> | | Set the maximum execution time for the current script |
| <code>mb_add_dev</code> | <code>int id</code> , <code>int type</code> , <code>string name</code> , <code>int poll_interval</code> , <code>int status</code> | <code>int 0=OK</code> | Add a device to the list of polled devices |
| <code>mb_delete_device</code> | <code>int id</code> | <code>int 1=OK</code> | Delete a device from the list of active devices |
| <code>mb_get_dev_by_id</code> | <code>int id</code> | <code>array</code> | Return modbus device details by <code>id</code> |
| <code>mb_get_dev_by_index</code> | <code>int index</code> | <code>array</code> | Return modbus device details by <code>index</code> |
| <code>mb_get_dev_by_name</code> | <code>string name</code> | <code>array</code> | Return modbus device details by <code>name</code> |

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| mb_get_dev_info | int type | array | Return modbus device details by type |
| mb_get_role_array | | array | Return an array of all roles and their values |
| mb_get_status_by_role | int role | int 1=OK | Return status of the device attached to the role |
| mb_get_val_by_role | int role | number | Return value of the role |
| mb_num_devices | | int | Return number of devices on the modbus |
| mb_queue_command | mixed values ... | array of numbers | Queue a sequence of characters to the rs485 bus and get but ignore the reply |
| mb_scan_complete | | int 1=complete, 0=ongoing | Check to see if a modbus scan has completed |
| mb_scan_percent | | number percent completed | Return scan percentage completed |
| mb_send_command | mixed values ... | array of numbers | Send a sequence of characters to the rs485 bus and get a reply |
| mb_set_dev_var | string name or int id , string variable , mixed value | int 1=OK | Set a variable on a modbus device |
| mb_set_val_by_role | int role , number value | int 1=OK | Set a role value on a modbus device |
| mb_start_scan | int start , int end | | Initiate an automatic scan of the modbus |
| md5 | string input | string 32 characters | Calculate the MD5 hash of a string |
| md5_file | string filename | string 32 characters | Calculate the MD5 hash of a file |
| mem_dump | | | Write the current memory map to /dump.txt |
| mem_usage | | | Write memory usage to standard output |
| microtime | | int ms | Return the number of milliseconds since boot |
| mkdir | string pathname | int 0 or error code | Make a directory |
| mktime | int hour , int minute , int second , int month , int day , int year | int seconds | Return the Linux Timestamp for a given date and time |
| mqtt_publish | string channel , string content | int 1 for success or 0 for error | Publish a message to an MQTT server |
| mqtt_subscribe | string channel , string callback | int 1 for success or 0 for error | Subscribe to a channel on an MQTT server |
| net_disable3g | | | Disable 3G support for the dongle |
| net_enable3g | | | Enable 3G support for the dongle |
| netstat | | array | Get Ethernet information |

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|---------------|---|------------------------------|---|
| number_format | mixed number, int digits | string formatted | Return the string value of a number formatted to a particular precision |
| nvrn_backup | string filename | int bytes written or 0=error | Backup the contents of NVRAM to a file on the SD Card |
| nvrn_defrag | | | Defragment NVRAM to optimise it |
| nvrn_dump | | | Dump the contents of NVRAM to standard output |
| nvrn_free | | int bytes | Return the number of bytes available in NVRAM |
| nvrn_get | string key | mixed value | Get a value from NVRAM |
| nvrn_restore | string filename | | Restore the contents of NVRAM from a file |
| nvrn_set | string key, string value | int 1=OK | Set a key and value in NVRAM |
| nvrn_unset | string key | int 1=OK | Clear a key from NVRAM |
| ord | string character | int ASCII code | Return the ASCII code for a character |
| ow_first | | array or int 0 | Initiate a OneWire bus scan and return the address of the first device found |
| ow_next | | array or int 0 | Return the address of the next OneWire device found (after an ow_first) |
| ow_read | | int value or 0 | Read a byte from the OneWire bus |
| ow_read_temp | array device_id | float degrees Celsius | Read a temperature from a device on the OneWire bus |
| ow_reset | | | Reset the OneWire bus |
| ow_write | int value | | Write a byte to the OneWire bus |
| phpinfo | | string | Return information about the system |
| pin_configure | int pin_index, int pin_type, int counter_type | | Configure an IO pin as a digital input, output, or analog input |
| pin_get | int pin_index, int pin_type | int value | Return the value of an IO pin |
| pin_set | int pin_index, int value | | Set a digital output to value 1 or 0 |
| ping | string host | array | Send an ICMP ping and place the result in an array |
| power | number base, number exp | number base ^{exp} | Return base raised to the power of exp |
| print | string data | | Print data to the current output stream such as a web page or terminal |
| print_r | array | | Dump the contents of an array to the current output |
| printf | string format, mixed values ... | | Print a formatted string to standard output |
| process_kill | int pid | | Send a kill request to a process |

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|-----------------|--------------------------------------|------------------------|--|
| process_list | | array | Return an array of the currently running scripts |
| rand | int min, int max | int | Return a random integer between min and max |
| reboot | | | Reboot the processor |
| rename | string source, string destination | int 0 or error code | Rename or move a file or directory from source to destination |
| reset | | | Reset the processor |
| rmdir | string pathname, int delete_contents | int 0=OK | Remove a directory, with optional deletion of contents |
| send_sms | string phone_number, string message | int result | sends an sms through a cellular dongle |
| session_destroy | | | Clear the current session's data |
| session_is_new | | int | Check if a session was just initiated |
| session_start | | | Initiate a new session and send the cookie data for it |
| set_search_path | string pathname | | Set the search path for the telnet client |
| setethpower | int state | | Enable or disable the ethernet controller |
| setpriority | int priority | | Set the priority of the current script |
| settime | int timestamp, int calibration | | Set the system time from a Linux Timestamp , with optional calibration |
| setusbpower | int state | | Enable or disable USB power |
| sha1 | string input | string 40 characters | Calculate the SHA1 hash of a string |
| sin | number radian_angle | float sine | Return sine of a radian_angle |
| sizeof | array | int number of elements | Return the number of elements in an array |
| sleep | int ms | | Sleep for specified milliseconds |
| spi_clearcs | | | Clear the CS output of the SPI bus |
| spi_read | | int byte | Read a byte from the SPI bus |
| spi_setcs | | | Set the CS output of the SPI bus |
| spi_write | int byte | | Write a byte to the SPI bus |
| sprintf | string format, mixed values ... | string formatted | Return a formatted string |
| sqr | number number | number squared | Return the square of a number |
| sqrt | number number | number square root | Return the square root of a number |
| stats | | array | Return system statistics |
| strftime | string format, int timestamp | string formatted | Format a Linux Timestamp using a format string |
| strlen | string input | int length | Return the length of a string |

| FUNCTION NAME | PARAMETER(S) | RETURN | DESCRIPTION |
|-----------------------------|--|-------------------------------------|---|
| strpos | string haystack, string needle | int position or -1 | Return the position of the first occurrence of a needle in a haystack |
| strrpos | string haystack, string needle | int position or -1 | Return the position of the last occurrence of a needle in a haystack |
| strtolower | string input | string lowercase | Return the lowercase version of a string |
| strtoupper | string input | string UPPERCASE | Return the UPPERCASE version of a string |
| strval | mixed value | string | Return the string equivalent of a number |
| substr | string input, int start, int length | string substring | Return part of a string |
| tar_finish | int handle | int 1=OK | Add the ending header to a TAR file |
| tar_put | int handle, string src_pathname, string tar_pathname | int 1=OK | Add a file to an open file in TAR format |
| time | | int seconds | Return the current system timestamp |
| timefromfat | int filetime | int seconds | Convert a FAT filetime to a Linux Timestamp |
| ucfirst | string input | string Lowercase | Convert a string to Lowercase except for the first character |
| unlink | string filename | int 0 or error code | Remove a file (delete it) |
| untar | string filename, int verbosity | int 1=OK | Expand a TAR file into the current folder, optionally verbose |
| uptime | | int ms | Return the uptime in milliseconds |

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