VRM Juice PHP Example

For more info about VRM Juice, see VRM JSON Juice API notes (DEPRECATED!)

Many thanks to Steven from http://lackancottage.co.uk/blog/, who wrote this code for his blog and providing it to us.

```
<?php
$url = 'https://juice.victronenergy.com/';
$username="YOUR VRM USERNAME";
$password="YOUR VRM PASSWORD";
$version="200.i";
$verification_token="1";
$instance="0";

$fields = array(
    'username' => urlencode($username),
    'password' => urlencode($password),
    'version' => urlencode($version),
    'verification_token' => urlencode($verification_token),
);

foreach($fields as $key=>$value)
    $fields_string .= $key.'='.$value.'&';
rtrim($fields_string, '&');

$ch = curl_init();
curl_setopt($ch,CURLOPT_URL, $url."user/login");
curl_setopt($ch,CURLOPT_POST, count($fields));
curl_setopt($ch,CURLOPT_POSTFIELDS, $fields_string);
curl_setopt($ch,CURLOPT_RETURNTRANSFER, 1);

$result = curl_exec($ch);

$result=json_decode($result);
$sessionid=$result->data->user->sessionid;

$fields = array(
    'sessionid' => urlencode($sessionid),
    'version' => urlencode($version),
    'verification_token' => urlencode($verification_token),
);

foreach($fields as $key=>$value)
    $fields_string .= $key.'='.$value.'&';
rtrim($fields_string, '&');
$ch = curl_init();
curl_setopt($ch,CURLOPT_URL, $url."sites/get");
curl_setopt($ch,CURLOPT_POST, count($fields));
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curl_setopt($ch,CURLOPT_POSTFIELDS, $fields_string);
curl_setopt($ch,CURLOPT_RETURNTRANSFER, 1);
$result = json_decode(curl_exec($ch));
if($result->status->code==200){
    $i=0;
    $str="";
    $ajax_values=array();
    foreach($result->data->sites as $site){
        $i++;
        $fields = array(
            'sessionid' => urlencode($sessionid),
            'version' => urlencode($version),
            'verification_token' => urlencode($verification_token),
            'siteid' => urlencode($site->idSite),
            #ADD THE ATTRIBUTES YOU NEED TO RETURN HERE
            'attributes'=> '[113, 131, 144, 143 ]',
            'instance' => urlencode($instance),
        );
        foreach($fields as $key=>$value)
            $fields_string .= $key.'='.$value.'&';
        rtrim($fields_string, '&');
        $ch = curl_init();
        curl_setopt($ch,CURLOPT_URL, $url."sites/attributes");
        curl_setopt($ch,CURLOPT_POST, count($fields));
        curl_setopt($ch,CURLOPT_POSTFIELDS, $fields_string);
        curl_setopt($ch,CURLOPT_RETURNTRANSFER, 1);
        $attributes = json_decode(curl_exec($ch));
        if($attributes->status->code==200){
            $attributes=$attributes->data->attributes;
        }
        else{
            $str.="Error in API Call. Try again<br /><h3>Error
Description:</h3><p>".$attributes->status->message."</p>";
        }
        $ajax_values[$i-1]=array(
            "site_id"=>$site->idSite,
            "site_name"=>$site->name,
            "attributes"=>array()
        );
        $str.='<div class="title"
id="site_'.$site->siteId.'">'.$site->name.'</div>';
        if(isset($attributes) && is_array($attributes)){
            foreach($attributes as $attribute){
                $str.='<div class="row" id="site_'.$site->idSite.'">';
                $value="value".ucfirst($attribute->dataType);
                switch($attribute->idDataAttribute){
                    case 131:
                        $str.="<div class='consumption'><div
id='customlabel'>Consumption</div><div id='value'>We are using <span
id='attribute_".$attribute->idDataAttribute."'>".round($attribute->$value,
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2)."</span> W</div></div>";
$ajax_values[$i-1]["attributes"][]=array($attribute->idDataAttribute,round($
attribute->$value, 2));
                    break;
                    case 113:
                        $str.="<div class='yield'><div
id='customlabel'>Solar Yield:</div><div id='value'>Generating <span
id='attribute_".$attribute->idDataAttribute."'>".round($attribute->$value,
1)."</span> W</div></div>";
$ajax_values[$i-1]["attributes"][]=array($attribute->idDataAttribute,round($
attribute->$value, 1));
                    break;
                    case 143:
                        $str.="<div class='voltage'><div
id='customlabel'>Battery:</div><div id='value'>Voltage <span
id='attribute_".$attribute->idDataAttribute."'>".$attribute->$value."</span>
V</div></div>";
$ajax_values[$i-1]["attributes"][]=array($attribute->idDataAttribute,$attrib
ute->$value);
                    break;
                    case 144:
                        $str.="<div
class='soc".($attribute->$value<=25?"1":($attribute->$value>25 &&
$attribute->$value<=50)?"2":($attribute->$value>50 &&
$attribute->$value<=75)?"3":"4")."'><div id='customlabel'>Battery:</div><div
id='value'>SOC <span
id='attribute_".$attribute->idDataAttribute."'>".$attribute->$value."</span>
%</div></div>";
$ajax_values[$i-1]["attributes"][]=array($attribute->idDataAttribute,$attrib
ute->$value);
                    break;
                }
                $str.='</div>';
            }
        }
        else{
            $str.='<div class="row"> </div>';
        }
    }
    $ajax_values[1]=$ajax_values[0];
    if(!isset($_GET["ajax"])){
        ?>
        <script
src="http://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></scr
ipt>
        <script>
        $(window).load(function(){
            setInterval(function(){
                $(".status_msg").show();
                $.get("<?php echo $_SERVER['PHP_SELF']?>", {ajax: 1},
function(data){
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                    data=data.split("##JSON##");
                    if(data[1]){
                        data = JSON.parse(data[1]);
                        for($i=0; $i<data.length; $i++){
                            for($j=0; $j<data[$i].attributes.length; $j++){
                                $("#site_"+data[$i].site_id+"
#attribute_"+data[$i].attributes[$j][0]).html(data[$i].attributes[$j][1]);
                            }
                        }
                    }
                    $(".status_msg").hide();
                });
            }, 10000); // change this value to whatever interval you need
for update
        });
        </script>
        <style>
            .status_msg{ display:none;}
            .list{
                border-collapse: collapse;
                font-size: 11px;
                margin: 0 auto;
                width: 1000px;
            }
            .list .th, .list .td {
                border: 1px solid #333;
                padding: 5px; vertical-align:top;
            }
            .list .th {
                background: none repeat scroll 0 0 #333;
                border: 1px solid #fff;
                color: #fff;
            }
            .list .tr.odd {
                background: none repeat scroll 0 0 #ccc;
            }
            .list .tr.even {
                background: none repeat scroll 0 0 #ff1;
            }
            .title { font-family: arial, sans-serif; font-size: 15px; font-
weight:bold: }
            .row {display: block; width: 300px;padding:10px;padding-left:
80px; margin:5px; border: 1px solid #666; }
            #customlabel { font-family: arial, sans-serif; font-size: 13px;
font-weight:normal; display:block;}
            #value { font-family: arial, sans-serif; font-size: 13px; font-
weight:normal; display:block;}
            #consumption {background-image
url('images/thumb_kwh_metre.png'); background-repeat:no-repeat; background-
position: left, middle; }
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            #yield {background-image url('images/thumb_weather_00.png');
background-repeat:no-repeat; background-position: left, middle; }
            #voltage {background-image url('images/thumb_lightning.png');
background-repeat:no-repeat; background-position: left, middle; }
            #soc {background-image url('images/thumb_battery_4.png');
background-repeat:no-repeat; background-position: left, middle; }
        </style>
        <div class="list">
            <?php echo $str;?>
            <div class="status_msg">Updating...</div>
        </div>
        <p>
          <?php
    }
    else
        echo "##JSON##".json_encode($ajax_values)."##JSON##";
}
else
    echo "Error in API Call. Try again<br /><h3>Error
Description:</h3><p>".$result->status->message."</p>";
curl_close($ch);
?>
          <br />
          <strong>Sample Values for Attribute ID's.</strong><br />
#description=Battery Power (System)
          #Attribute ID 243 Value(valueFloat): -141.54%F%.0F W
        <br /> #description=Grid L1
        #Attribute ID 134 Value(valueFloat): 0%.0F%.0F W          <br />
        #description=AC Consumption L1
        #Attribute ID 131 Value(valueFloat): 116%.0F%.0F W          <br />
        #description=Solar charger serial number
          #Attribute ID 118 Value(valueString): HQ143299WX7%s%s
          <br />
          #description=PV - DC-coupled
        #Attribute ID 113 Value(valueFloat): 0%.0F%.0F W          <br />
        #description=Battery watts
        #Attribute ID 107 Value(valueFloat): 0%.0F%.0F W <br />
        #description=Solarcharger model
        #Attribute ID 106 Value(valueString): 108%s%s          <br />
        #description=Battery to consumers
        #Attribute ID 105 Value(valueFloat): 0.0599995%.2F%.2F kWh<br />
        #description=Error code
          #Attribute ID 98 Value(valueEnum): 0%s%s          <br />
#description=Maximum charge power yesterday
          #Attribute ID 97 Value(valueFloat): 1118%d%d          <br />
        #description=Yield yesterday
          #Attribute ID 96 Value(valueFloat): 1.83%.2F%.2F
          <br /> #description=Maximum charge power today
          #Attribute ID 95 Value(valueFloat): 157%d%d
          <br /> #description=Yield today
          #Attribute ID 94 Value(valueFloat): 0.4%.2F%.2F
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```
  <br /> #description=High batt. voltage alarm
  #Attribute ID 93 Value(valueEnum): 0%s%s
  <br /> #description=Low batt. voltage alarm
  #Attribute ID 92 Value(valueEnum): 0%s%s
  <br /> #description=Battery Voltage (System)
  #Attribute ID 143 Value(valueFloat): 23.59%.2F%.2F V
  <br /> #description=Battery State of Charge (System)
  #Attribute ID 144 Value(valueFloat): 94%.1F%.1F %%
  <br /> #description=Battery Consumed Amphours (System)
  #Attribute ID 145 Value(valueFloat): -20.7%.2F%.2F Ah
  <br /> #description=VE.Bus hidden SOC
  #Attribute ID 240 Value(valueFloat): 84.5%.1F%.1F %%
  <br /> #description=Network traffic rx
  #Attribute ID 239 Value(valueFloat): 89506%d%d B
  <br /> #description=Network traffic tx
  #Attribute ID 238 Value(valueFloat): 8997%d%d B
  <br /> #description=Boot type
#Attribute ID 237 Value(valueEnum): 1%s%s <br />
#description=log time offset
  #Attribute ID 216 Value(valueFloat): 119%s%s s
  <br /> #description=Battery state
  #Attribute ID 215 Value(valueEnum): 2%s%s
  <br /> #description=Remote support
  #Attribute ID 154 Value(valueEnum): 0%s%s
  <br /> #description=VE.Bus charge current (System)
  #Attribute ID 153 Value(valueFloat): -5.7%.1F%.1F A
  <br /> #description=Update to
  #Attribute ID 151 Value(valueEnum): 0%d%d
  <br /> #description=Auto update
  #Attribute ID 150 Value(valueEnum): 1%d%d
  <br /> #description=Local ip address
  #Attribute ID 149 Value(valueString): 192.168.2.2%s%s
  #<br /> #description=Remote ip address
  #Attribute ID 148 Value(valueString): 88.145.32.15%s%s
  <br /> #description=Battery Current (System)
  #Attribute ID 147 Value(valueFloat): -6%.2F%.2F A
  <br /> #description=Battery Time to Go (System)
  #Attribute ID 146 Value(valueFloat): 23.5%.2F%.2F h
  <br /> #description=Relay on the charger
  #Attribute ID 90 Value(valueEnum): 0%s%s
  <br /> #description=PV current
  #Attribute ID 87 Value(valueFloat): 0%.1F%.1F
  <br /> #description=PV voltage
  #Attribute ID 86 Value(valueFloat): 10.98%.2F%.2F
  <br /> #description=Active input current limit
  #Attribute ID 27 Value(valueFloat): 3.1%.2F%.2F A
  <br /> #description=Output frequency
  #Attribute ID 26 Value(valueFloat): 49.8982%.2F%.2F Hz
  <br /> #description=Output current phase 1
  #Attribute ID 23 Value(valueFloat): 0.64%.1F%.1F A
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<br /> #description=Output voltage phase 1
#Attribute ID 20 Value(valueFloat): 245.02%.1F%.1F VAC
<br /> #description=Input power 1
#Attribute ID 17 Value(valueFloat): 0%.0F%.0F VA
<br /> #description=Input frequency 1
#Attribute ID 14 Value(valueFloat): 50.1026%.2F%.2F Hz
<br /> #description=Input current phase 1
#Attribute ID 11 Value(valueFloat): 0%.1F%.1F A
<br /> #description=Input voltage phase 1
#Attribute ID 8 Value(valueFloat): 247.06%.1F%.1F VAC
<br /> #description=VE.Bus device version
#Attribute ID 7 Value(valueString): 2610304%s%s
<br /> #description=mk2 version
#Attribute ID 6 Value(valueString): 1130133%s%s
<br /> #description=Longitude
#Attribute ID 5 Value(valueFloat): -6.08909%.5F%.5F LNG
<br /> #description=Latitude
#Attribute ID 4 Value(valueFloat): 54.2621%.5F%.5F LAT
<br /> #description=gatewayBuildDate
#Attribute ID 3 Value(valueString): 201412221640%s%s
<br /> #description=gatewayVersion
#Attribute ID 2 Value(valueString): v1.17%s%s
<br /> #description=Output power 1
#Attribute ID 29 Value(valueFloat): 116%.0F%.0F VA
<br /> #description=Battery voltage
#Attribute ID 32 Value(valueFloat): 23.6%.2F%.2F V
<br /> #description=Battery current
#Attribute ID 33 Value(valueFloat): -5.7%.1F%.1F A
<br /> #description=Charge state
#Attribute ID 85 Value(valueEnum): 0%s%s
<br /> #description=Charger on/off
#Attribute ID 84 Value(valueEnum): 4%s%s
<br /> #description=Battery temperature
#Attribute ID 83 Value(valueFloat): 4.75%.1F%.1F C
<br /> #description=Battery current
#Attribute ID 82 Value(valueFloat): 0%.1F%.1F A
<br /> #description=Battery voltage
#Attribute ID 81 Value(valueFloat): 23.61%.2F%.2F V
<br /> #description=Solar charger version
#Attribute ID 80 Value(valueString): v2.02%s%s
<br /> #description=Switch Position
#Attribute ID 79 Value(valueEnum): 3%s%s
<br /> #description=Overload alarm
#Attribute ID 44 Value(valueEnum): 0%s%s
<br /> #description=Low battery alarm
#Attribute ID 43 Value(valueEnum): 0%s%s
<br /> #description=Temperature alarm
#Attribute ID 42 Value(valueEnum): 0%s%s
<br /> #description=VE.Bus Error
#Attribute ID 41 Value(valueEnum): 0%s%s
<br /> #description=VE.Bus state
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          #Attribute ID 40 Value(valueEnum): 9%s%s
          <br /> #description=Active input
          #Attribute ID 35 Value(valueFloat): 0%d%d
          <br /> #description=Phase count
          #Attribute ID 34 Value(valueFloat): 1%d%d
          <br /> #description=gatewayID
          #Attribute ID 1 Value(valueEnum): 1%s%s
        </p>
```

DISQUS

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