

Insteon - Feature #930

iMeter Power Usage

12/17/2014 10:56 PM - Luke Murphey

| | | | |
|---|--------------|------------------------|---------------------------------|
| Status: | New | Start date: | 12/17/2014 |
| Priority: | Normal | Due date: | |
| Assignee: | Luke Murphey | % Done: | 0% |
| Category: | | Estimated time: | 0.00 hour |
| Target version: | 0.10 | | |
| Description | | | |
| See https://github.com/automategreen/home-controller/blob/master/lib/Insteon/Meter.js | | | |
| Related issues: | | | |
| Related to Insteon Control - Feature #878: Allow controlling of Insteon in Sp... | | | Closed 12/19/2015 |

History

#1 - 12/27/2014 07:30 AM - Luke Murphey

- Target version set to 0.6

#2 - 04/11/2015 12:39 AM - Luke Murphey

- Target version changed from 0.6 to 0.9

#3 - 06/04/2015 05:48 PM - Luke Murphey

- File eve-energy-device-app-icons.jpg added



Consumption



Switch On/Off



Gain Insights



#4 - 12/19/2015 04:15 AM - Luke Murphey

- Related to Feature #878: Allow controlling of Insteon in Splunk added

#5 - 12/19/2015 07:03 PM - Luke Murphey

See also:

- <http://cache.insteon.com/developer/2448A2dev-042011-en.pdf>
- <http://cache.insteon.com/developer/2423A1dev-072013-en.pdf>

Basically, it looks like the iMeter needs to get a 00 82 command in order to send power readings.

#6 - 12/22/2015 07:30 AM - Luke Murphey

<http://cache.insteon.com/developer/2423A1dev-072013-en.pdf>

bytes 7 & 8 are power

bytes 9-12 are accumulated energy

```
IntEnergy = 256*256*256*Data9 + 256*256*Data10 + 256*Data11 + Data12;

if(Data9 < 254)
    AccumEnergy = IntEnergy * 65535.0 / (1000 * 60.0 * 60.0 * 60.0);
else
    AccumEnergy = 0.0;

IntPwr = (Data7 << 8) | Data8;

*pwr = (double)IntPwr;

if(*pwr > 32767.0)
    *pwr = *pwr - 65535.0;
```

#7 - 02/02/2016 03:15 AM - Luke Murphey

- Target version changed from 0.9 to 0.10

#8 - 04/17/2017 08:17 PM - Luke Murphey

See also:

<https://github.com/openhab/openhab1-addons/blob/0d13cc0761633efd7998f89bca31e6887403490a/bundles/binding/org.openhab.binding.insteonplm/src/main/java/org/openhab/binding/insteonplm/internal/device/MessageHandler.java>

```
public void handleMessage(int group, byte cmd1, Msg msg, DeviceFeature f, String fromPort) {
    if (msg.isExtended()) {
        try {
```

```

        // see iMeter developer notes 2423A1dev-072013-en.pdf
        int b7 = msg.getBytes("userData7") & 0xff;
        int b8 = msg.getBytes("userData8") & 0xff;
        int watts = (b7 << 8) | b8;
        if (watts > 32767) {
            watts -= 65535;
        }

        int b9 = msg.getBytes("userData9") & 0xff;
        int b10 = msg.getBytes("userData10") & 0xff;
        int b11 = msg.getBytes("userData11") & 0xff;
        int b12 = msg.getBytes("userData12") & 0xff;
        BigDecimal kwh = BigDecimal.ZERO;
        if (b9 < 254) {
            int e = (b9 << 24) | (b10 << 16) | (b11 << 8) | b12;
            kwh = new BigDecimal(e * 65535.0 / (1000 * 60 * 60 * 60)).setScale(4, RoundingMode.HAL
F_UP);
        }

        logger.debug("{}: {} watts: {} kwh: {} ", nm(), f.getDevice().getAddress(), watts, kwh);
        m_feature.publish(new DecimalType(kwh), StateChangeType.CHANGED, "field", "kwh");
        m_feature.publish(new DecimalType(watts), StateChangeType.CHANGED, "field", "watts");
    } catch (FieldException e) {
        logger.error("error parsing {}: ", msg, e);
    }
}
}
}

```

Files

| | | | |
|---------------------------------|---------|------------|--------------|
| eve-energy-device-app-icons.jpg | 44.3 KB | 06/04/2015 | Luke Murphey |
|---------------------------------|---------|------------|--------------|