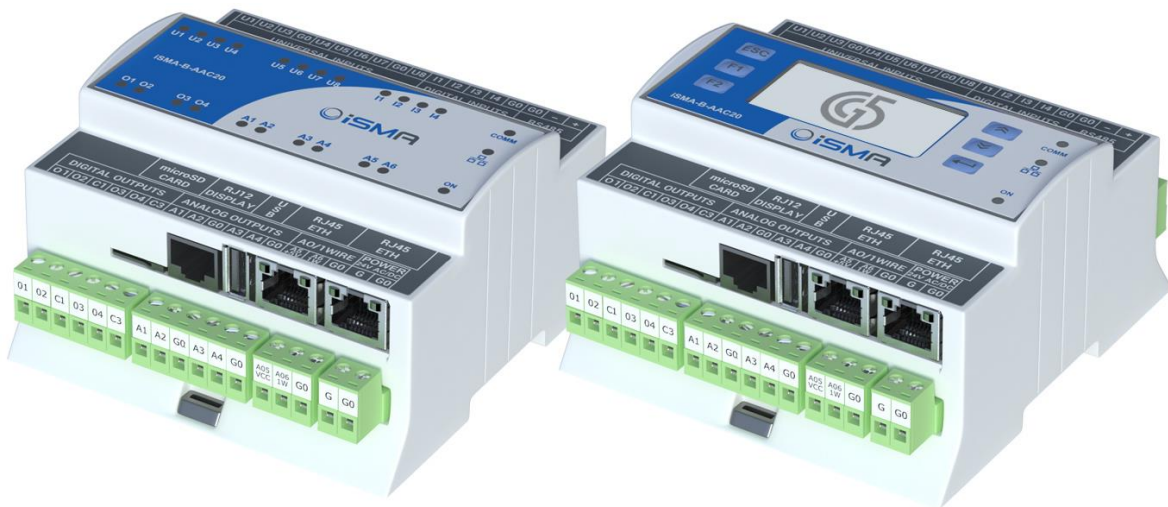




iSMA-B-AAC20

User Manual

iSMA Weather kit



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sedona
FRAMEWORK™

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1 Sedona Weather module

This manual contains information about Weather module in the AAC20 controller. Weather kit can be used in all AAC20 hardware version with firmware 3.4 version or higher. Before install, it is recommended to update firmware to the latest version.

The weather component uses Yahoo Weather Web Service so the AAC20 controller must have an access to the Internet for proper work.

The components: Sun position and Moon position work without Internet connection, they operate on system time and city location.

2 Installing iSMA Weather kit

To install Sedona Weather kit, import the kit to the WorkPlace software (possibly as part of the package of various kits in a zip file). To do this, use an application from the Tools menu -> Sedona Installer.

After successful import of the files, upload the files to your device using the Kit Manager Application from the Sedona Tools package.

Warning! Before programing Sedona Weather, please check if you are using the latest kit version. The latest kit is available on GC5 support web site: www.support.gc5.pl

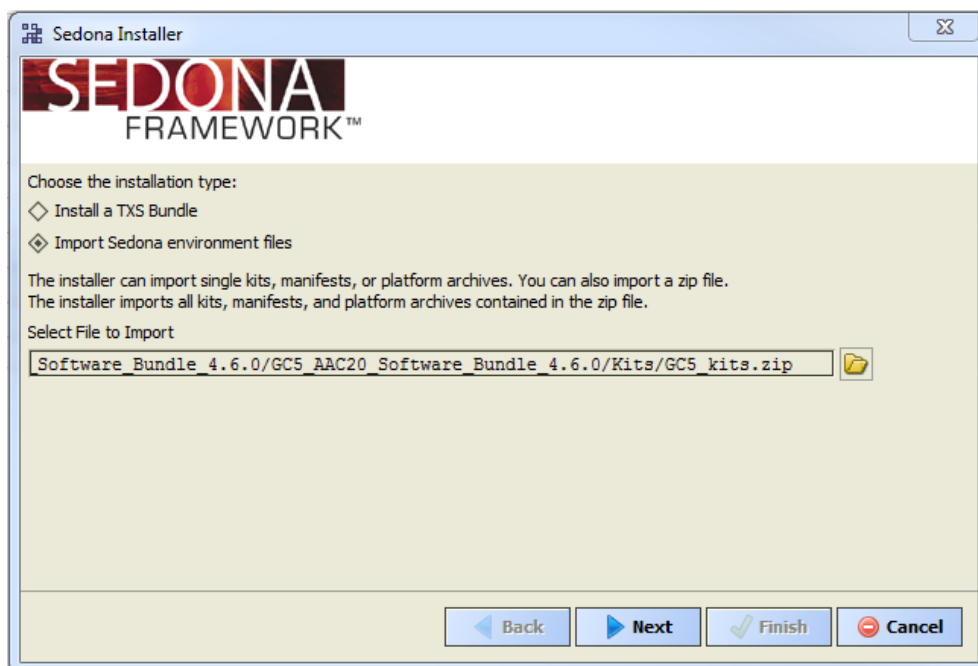


Figure 1 - Sedona Installer

2.1 Install iSMA_Weather kit on the AAC20 controller

After successful import all packages, upload the files to your device using the Kit Manager Application from the Sedona Tools.

To install selected kit:

Step 1: Open Work Place, expand Sedona Application, then Sedona Tools and then choose double click Kit Manager;

Step 2: In the Kit Manager, you can manage your kits on the Sedona device;

Step 3: Select Weather kit, then you can click Next, Finish and Restart Device;

Step 4: Your components install successful.

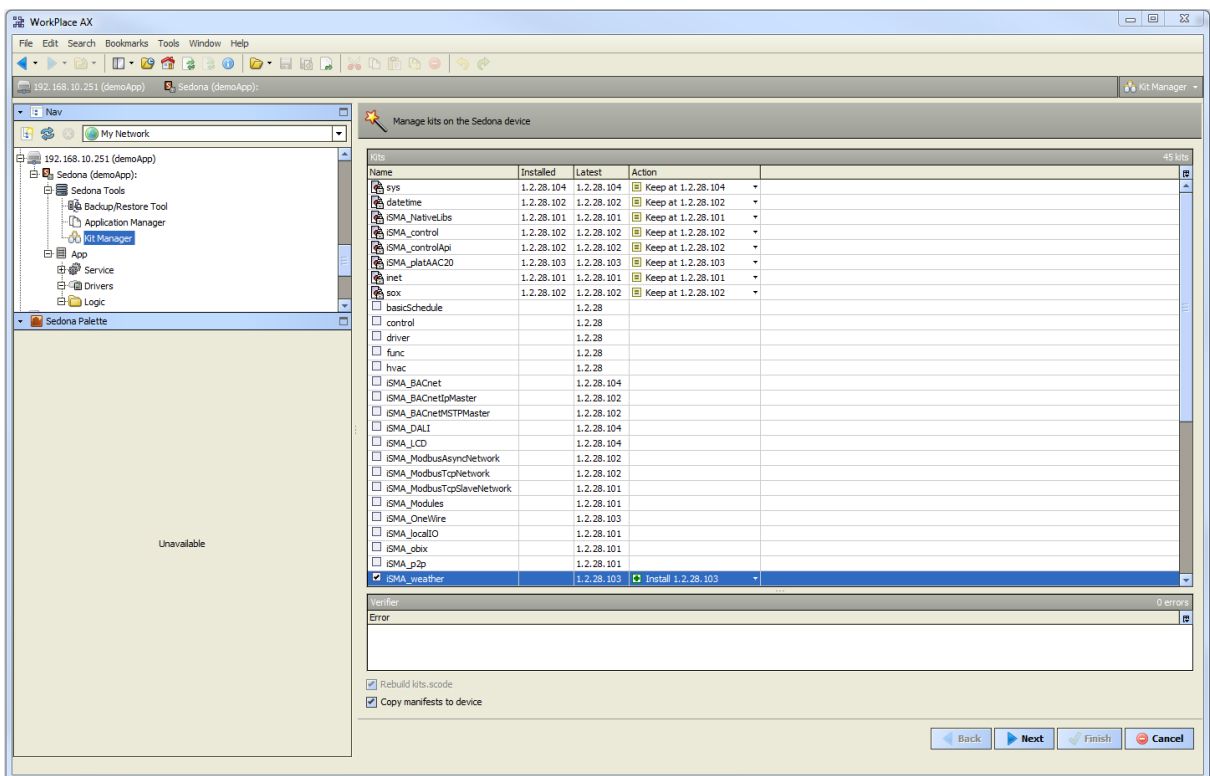


Figure 2 - Kit Manager installing Weather kit

2.2 Remove iSMA_Weather kit from the AAC20 controller

To remove selected kit:

Step 1: Remove all kits components from application;

Step 2: Open Work Place, expand Sedona Application, next Sedona Tools and then choose double click Kit Manager;

Step 3: In the Kit Manager, you can manage your kits on the Sedona device;

Step 4: Uncheck Weather kit, then you can click Next, Finish and Close;

Step 5: Your components uninstall successful.

3 Weather kit components

Weather kit consists of 3 types of components:

- Weather: Current weather conditions,
- Sun position: The position of the sun,
- Moon position: Current moon phase.

3.1 Weather component

Weather component is responsible for servicing Weather service. This component uses Yahoo Weather Web Service. For proper work, the controller must have Internet connection. Information about weather are refreshed every 15min. Using Yahoo Weather Web Service is free but there is connection limitation up to 1000 per day from one public IP address.

Note! If you use more than one AAC20 controller with weather application, please calculate if total number of connection is less than 1000.

The city name can be entered as text or zip code, city localization is confirmed in slot: City Name From Server. User can add additional information about city localization after comma like region or country name.

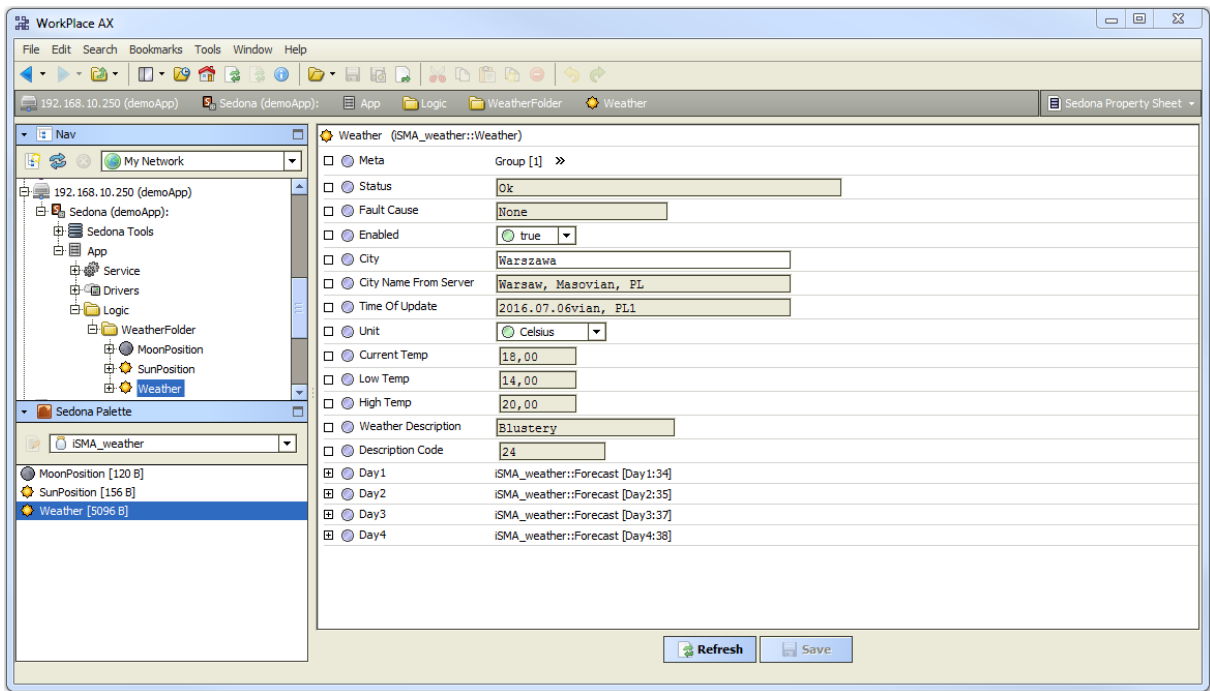


Figure 3 - Weather component Property Sheet view

The component has the following slots:

- Status – Network status, available status:
 - OK – Network is working properly,
 - Disabled – Network is disable (Slot “Enable” is in false),
- Fault Cause – Fault cause description,
- Enabled - Switches to on/off Weather service.
- City - Unique name for Town,
- City Name From Server - The name, region and country of the town which are collected weather data,
- Time Of Update – Date and time of last update from server,
- Unit – Measure temperature, calculated in Celsius or Fahrenheit,
- Current Temp - Current temperature as a Numeric value,
- Low Temp - Low temperature as a Numeric value,
- High Temp - High temperature as a Numeric value,
- Weather Description - Text descriptor summarizing current weather conditions, as a Status String value,
- Description Code – Integer value corresponds to the Weather Description. Values and the corresponding descriptions are contained in the chapter 4: Weather status value description

The Weather component also receives weather forecast for next 4 days.

Day 1-4 components have the following slots:

- Date – Date/timestamp of weather report,
- Low Temp - Low temperature as a Numeric value,
- High Temp - High temperature as a Numeric value,
- Weather Description - Text descriptor summarizing current weather conditions, as a Status String value.
- Description Code – Integer value corresponds to the Weather Description. Values and the corresponding descriptions are contained in the chapter 4: Weather status value description

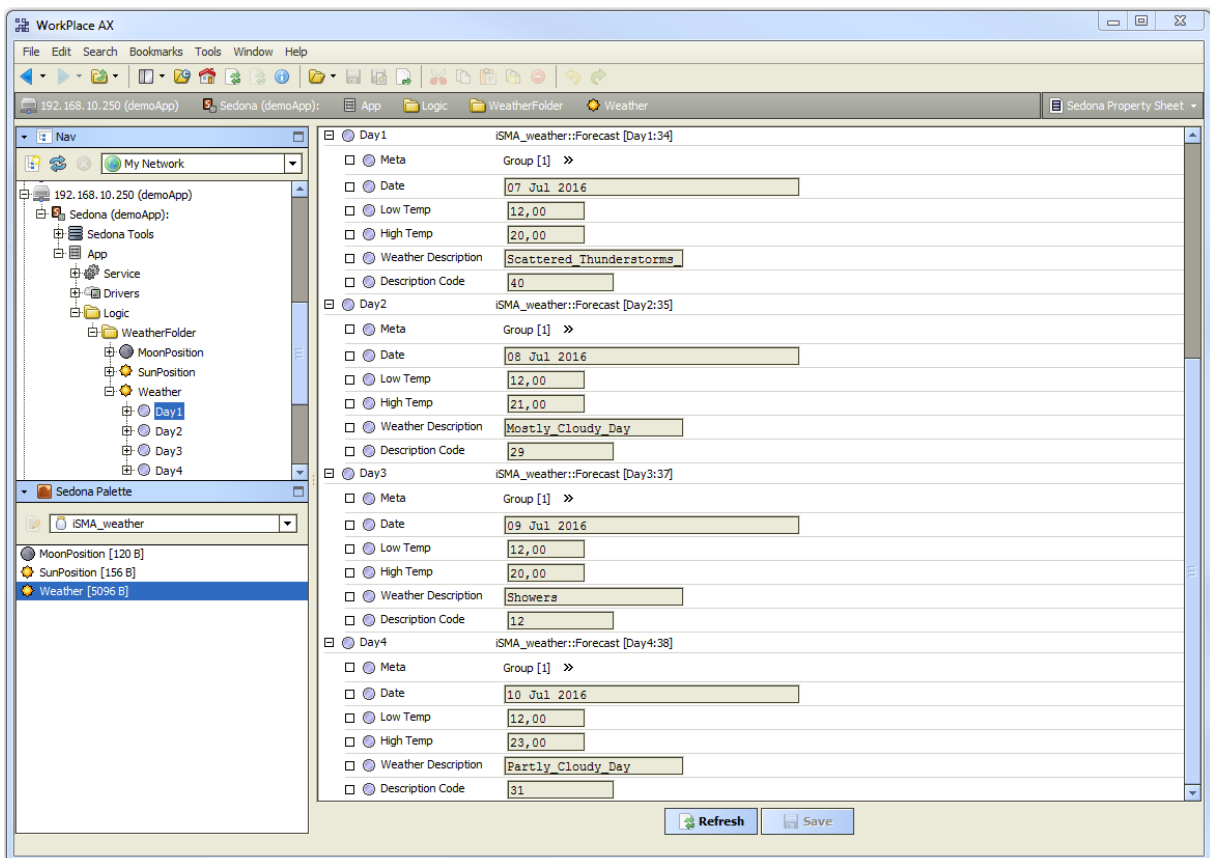


Figure 4 - Weather Day 1-4 components Property Sheet view

3.2 Sun Position

The Sun Position component calculates a current sun position based on current time and controller localization. Internet connection is not required for proper work.

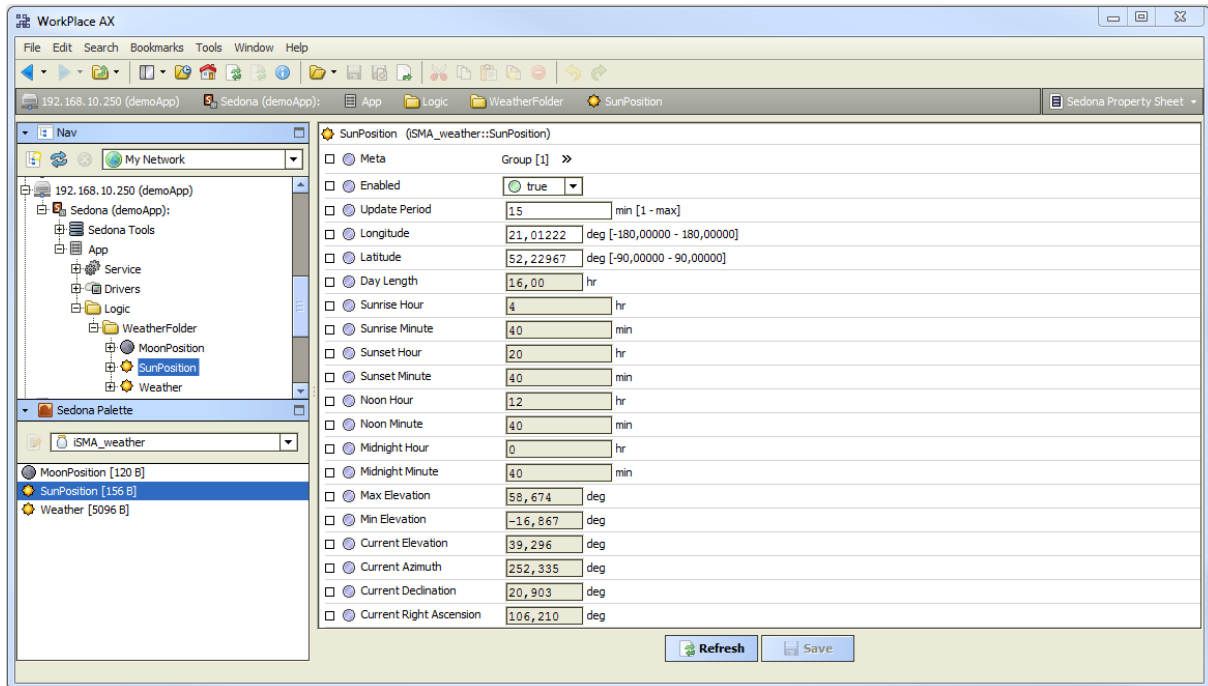


Figure 5 - Sun Position component Property Sheet view

The component has the following slots:

- Enabled – Enable / Disable servicing device,
- Update Period – Action in minute where you can update Sun Position report,
- Longitude – Local longitude coordinate,
- Latitude – Local latitude coordinate,
- Day Length – Current day length (read only),
- Sunrise Hour – Sunrise hour (read only),
- Sunrise Minute – Sunrise minute (read only),
- Sunset Hour – Sunset hour (read only),
- Sunset Minute – Sunset minute (read only),
- Noon Hour – Noon hour (read only),
- Noon Minute – Noon minute (read only),
- Midnight Hour – Midnight hour (read only),
- Midnight Minute – Midnight minute (read only),
- Max Elevation – Maximum elevation (read only),
- Min Elevation – Minimum elevation (read only),

- Current Elevation – Current elevation (read only),
- Current Azimuth – Current azimuth (read only),
- Current Declination – Current declination (read only),
- Current Right Ascension – Current right ascension (read only).

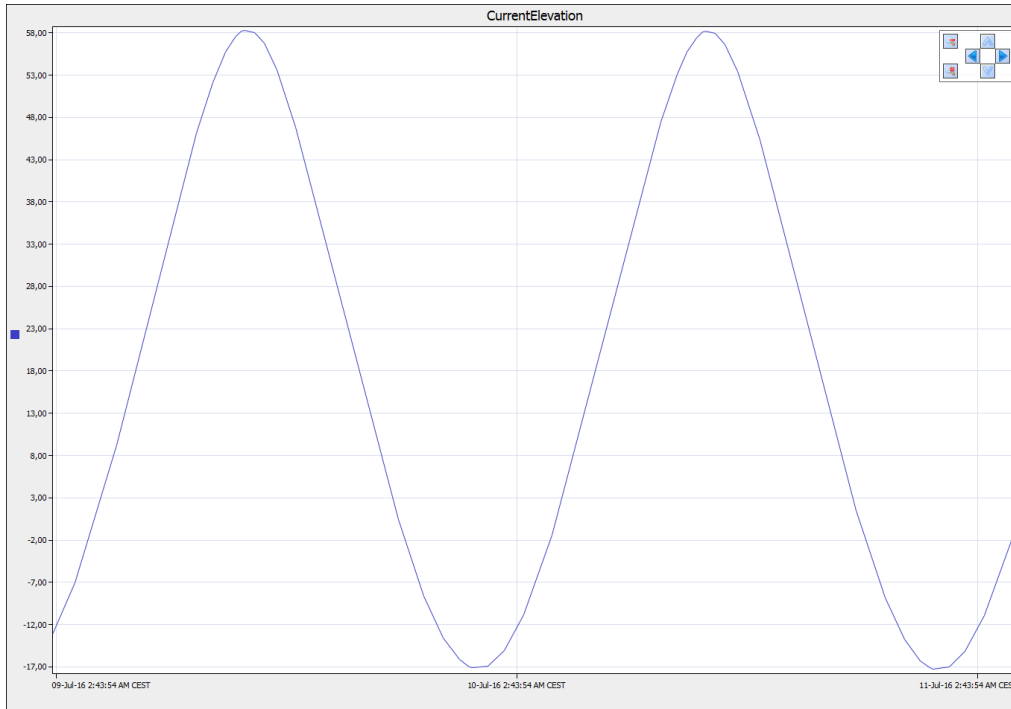


Figure 6 - Current Elevation 2 days Trend Log history

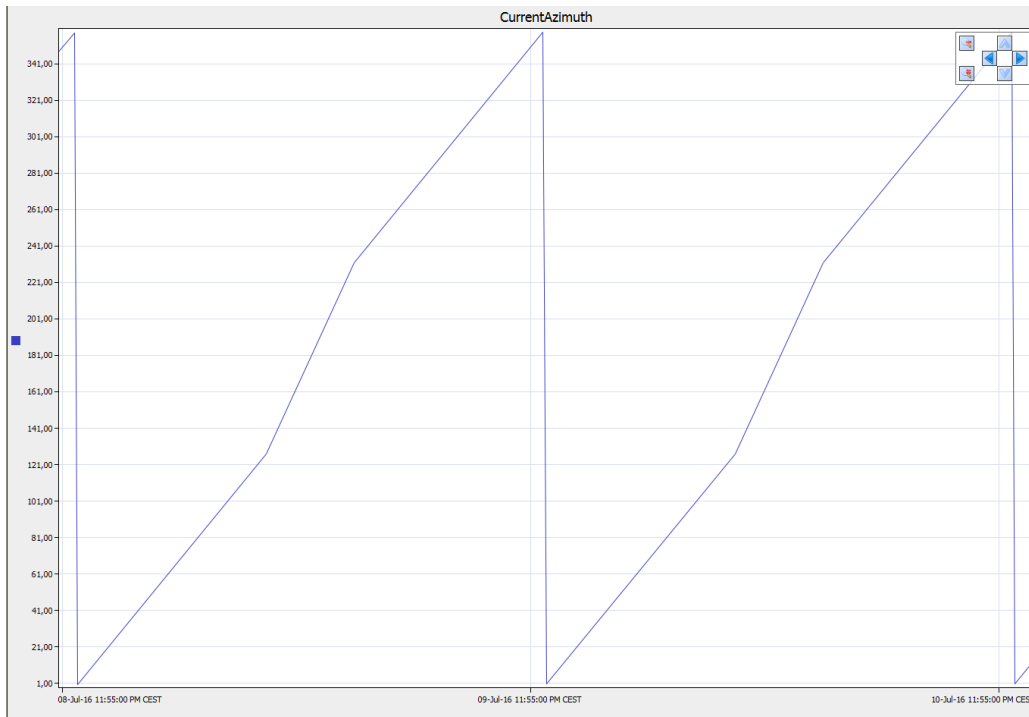


Figure 7 - Current Azimuth 2 days Trend Log history

3.3 Moon Position

The Moon Position component calculates a current moon position based on current time. Internet connection is not required for proper work.

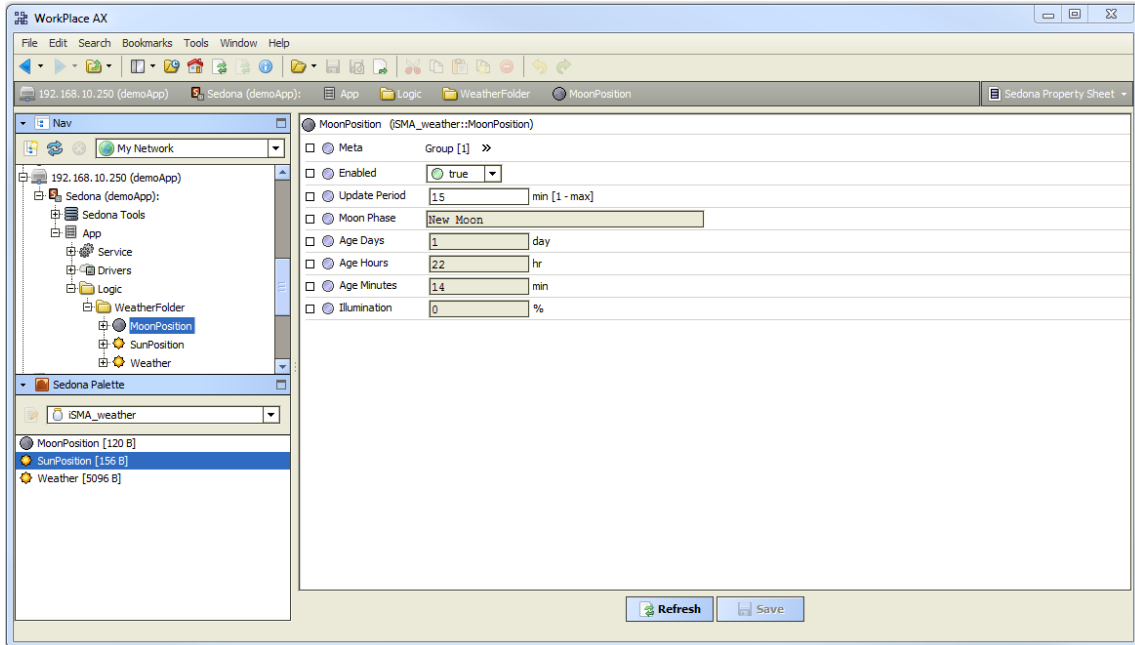


Figure 8 - Moon Position component Property Sheet view

The component has the following slots:

- Enabled – Enable / Disable servicing device,
- Update Period – Action in minute where you can update Moon Position report,
- Moon Phase – The moon phases (read only),
- Age Days – Days to orbit Earth (read only),
- Age Hours – Hours to orbit Earth (read only),
- Age Minutes – Minutes to orbit Earth (read only)
- Illumination – Earth illuminated (read only).

4 Weather status value description

Value	Description	Value	Description
1	tornado	26	cold
2	tropical storm	27	cloudy
3	hurricane	28	mostly cloudy (night)
4	severe thunderstorms	29	mostly cloudy (day)
5	Thunderstorms	30	partly cloudy (night)
6	mixed rain and snow	31	partly cloudy (day)
7	mixed rain and sleet	32	clear (night)
8	mixed snow and sleet	33	sunny
9	freezing drizzle	34	fair (night)
10	drizzle	35	fair (day)
11	freezing rain	36	mixed rain and hail
12	showers	37	hot
13	showers	38	isolated thunderstorms
14	snow flurries	39	scattered thunderstorms
15	light snow showers	40	scattered thunderstorms
16	blowing snow	41	scattered showers
17	snow	42	heavy snow
18	hail	43	scattered snow showers
19	sleet	44	heavy snow
20	dust	45	partly cloudy
21	foggy	46	thundershowers
22	haze	47	snow showers
23	smoky	48	isolated thundershowers
24	blustery		
25	windy	3200	not available