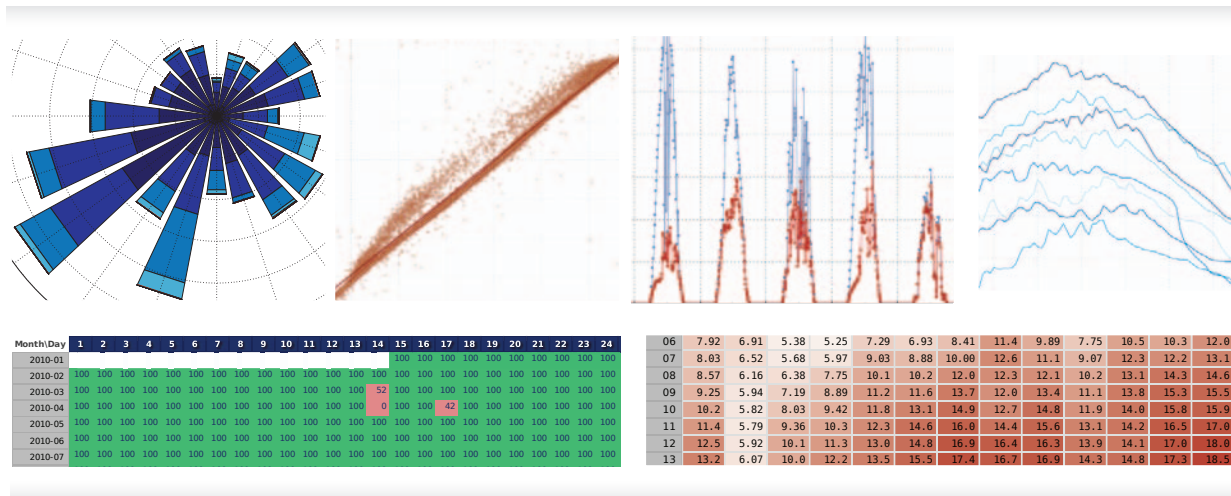


AmmonitOR - Ammonit Online Report



AmmonitOR (Ammonit Online Report) supports you in monitoring your measurement campaigns. You can reliably manage and monitor measurement data. With implemented filters you can easily check the data quality. In order to verify measurement data for plausibility, various plots are available. In the calendar you can quickly review your data for completeness. Occurring difficulties like wear or low power supply can effectively be detected and fixed at an early stage. Automatically generated PDF reports summarize system and measurement data for a determined period. To perform further analysis, you can conveniently export measurement data into a format of your choice.

Effectively manage and monitor your measurement campaigns.

Features for efficient campaign monitoring

Data calendar and filters

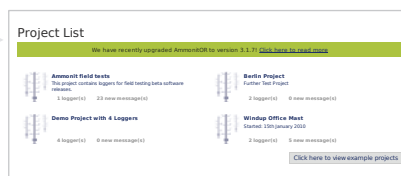
Effectively check data for completeness and plausibility. Configurable filters indicate suspicious data.

Plots for data quality check

Inspect in detail measurement data, e.g., in XY plots, overlay graphs or correlations, to detect errors early.

Connection log

Conveniently monitor the communication behaviour of the data loggers in your measurement project. Connection failures can early be detected.



PDF reports

Generate PDF reports automatically, which summarize the campaign on a weekly or monthly basis including plots, communication and supply details.

Automatic data transmission

Measurement data is automatically transferred via SCP from Meteo-40 data loggers to AmmonitOR. Once configured, no further interaction is needed.

Data export

Easily export measurement data for determined periods into various data formats.

Data security

Access via encrypted HTTPS connection. Communications encrypted using Open SSH protocol. Browser sessions encrypted using the SSL protocol.

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Effectively manage your measurement campaigns with AmmonitOR

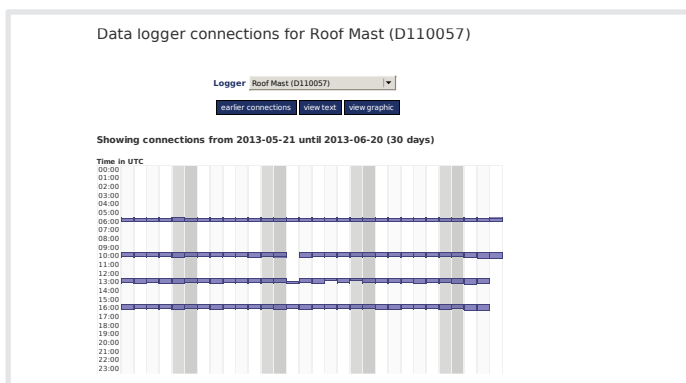
Project, data loggers and measurement data

Hour	01	02	03	04	05	06	07	08	09	10	11	12	13	14
00	9.23	9.63	7.07	6.67	6.19	6.97	9.23	11.9	10.2	9.66	9.07	10.6	13.1	11.5
01	8.68	9.58	6.85	5.95	5.66	6.42	8.40	11.0	9.53	9.09	8.48	10.0	12.4	10.3
02	8.52	9.63	6.52	5.43	5.29	5.96	7.68	10.0	9.15	8.44	8.18	9.64	11.9	8.89
03	8.34	9.55	6.16	4.80	4.45	5.52	7.01	9.61	8.42	7.85	7.98	8.96	11.5	8.32
04	8.23	8.42	5.77	4.41	4.57	5.22	6.78	9.61	7.98	7.67	7.93	8.71	11.2	7.87
05	8.06	7.61	5.52	4.66	5.49	5.56	7.19	9.95	8.15	7.55	9.05	8.99	11.4	7.18
06	7.92	6.91	5.38	5.25	7.29	6.93	8.41	11.4	9.89	7.75	10.5	10.3	12.0	7.55
07	8.03	6.52	5.68	5.97	9.03	8.88	10.00	12.6	11.1	9.07	12.3	12.2	13.1	8.15
08	8.57	6.16	6.38	7.75	10.1	10.2	12.0	12.3	12.1	10.2	13.1	14.3	14.6	8.75
09	9.25	5.94	7.19	8.89	11.2	11.6	13.7	12.0	13.4	11.1	13.8	15.3	15.5	9.19
10	10.2	5.82	8.03	9.42	11.8	13.1	14.9	12.7	14.8	11.9	14.0	15.8	15.9	10.1
11	11.4	5.79	9.36	10.3	12.3	14.6	16.0	14.4	15.6	13.1	14.2	16.5	17.0	11.0
12	12.5	5.92	10.1	11.3	13.0	14.8	16.9	16.4	16.3	13.9	14.1	17.0	18.0	11.5
13	13.2	6.07	10.0	12.2	13.5	15.5	17.4	16.7	16.9	14.3	14.8	17.3	18.5	12.4
14	13.8	6.28	11.0	13.0	13.7	15.7	17.6	17.0	17.0	14.7	15.0	17.7	18.9	12.9
15	14.0	6.15	11.0	13.4	14.0	15.0	17.4	17.4	16.4	14.7	14.7	17.6	19.0	13.4

Projects and measurement data

Effectively monitor your measurement systems in projects. AmmonitOR displays sensor details and evaluations as well as for each data logger a data calendar, e.g., to quickly detect problems with the measurement system.

- Easily validate daily measurement data for evaluations, channels and statistics.
- Set filters to effectively detect suspicious data, e.g., unnatural wind speed.
- Monitor the trend of certain measurements in average tables.



System monitoring

AmmonitOR displays communication behaviour and power supply of the measurement system.

- For each Meteo-40 data logger all online connections, including data upload, online periods and emails, are displayed.
- By monitoring the power supply, low battery voltage can early be detected.



Generating PDF reports

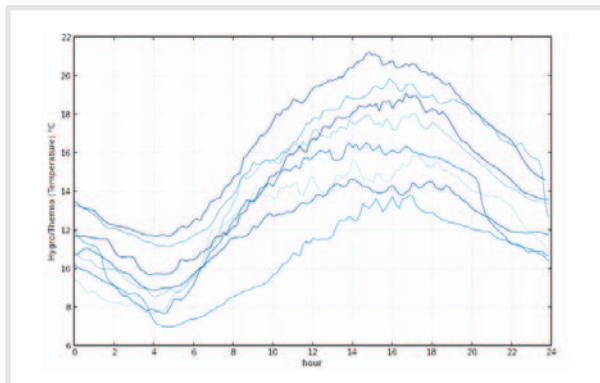
AmmonitOR automatically generates PDF reports, which summarize important data of your measurement project. Occurring problems can be detected and solved at an early stage, e.g., wear.

- Project information at a glance.
- Monitoring communication behaviour and power supply.
- Plots with measurement data, e.g., wind speed, wind direction, temperature, barometric pressure, and turbulence intensity.

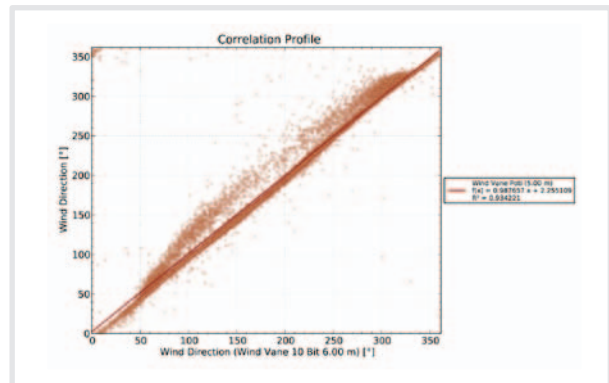
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Conveniently monitor and inspect measurement data

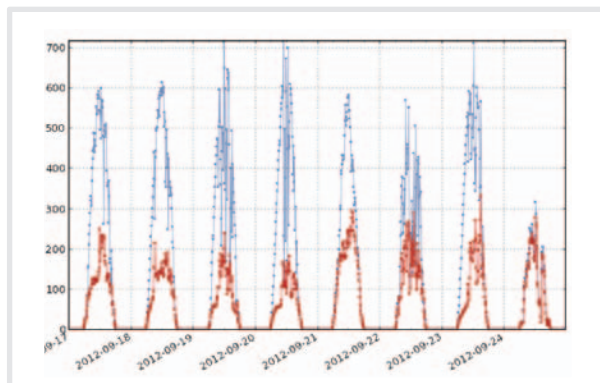
Display measurement data in various diagrams



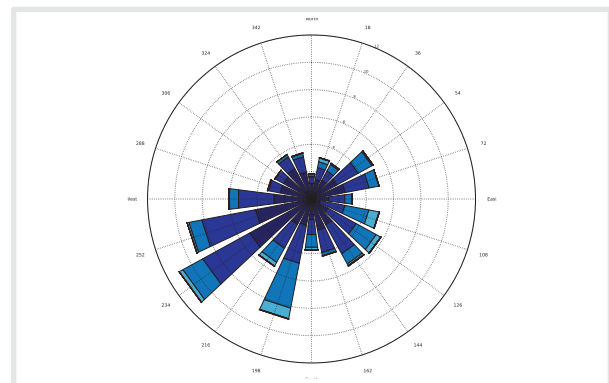
Overlay graph for temperature



Correlation profile of top and backup wind vane



XY plots for global horizontal irradiation



Wind speed and direction in wind rose diagram

Monitor and check data quality

Range filters							
Active	Evaluations	Min. value	Max. value	Message	Alert type	New status	
yes	Wind Vane 10 Bit - wind direction, Wind Vane Poti - wind direction	0	360	impossible wind direction	only archive	Error	Details
yes	Barometer - air pressure, Baro RS485 (Steel-Cabinet) - air pressure	870	1085	impossible air pressure	only archive	Suspicious	Details
yes	Internal temperature - temperature, HygroThermo - temperature, Baro RS485 (Steel-Cabinet) - temperature, Steel Cabinet - temperature	-40	80	impossible temperature	only archive	Error	Details
yes	Anemometer - wind speed		28	impossible wind speed	only archive	Error	Details
yes	HygroThermo - humidity, HygroThermo - temperature, Hygro_Test (Steel Cabinet) - voltage	0	100	Humidity can not be greater than 100%	only archive	Error	Details

Sequence filters						
Active	Evaluations	Threshold	Message	Alert type	New status	
yes	Anemometer - wind speed	36	Anemometer possibly frozen.	only archive	Suspicious	Details

Comparison filters										
Active	Project	Evaluation 1	Comparison type	Evaluation 2	Evaluation 2 factor	Evaluation 2 offset	Message	Alert type	New status	
yes	Ammonit field tests	HygroThermo - temperature	>	Thermo_KP (Steel Cabinet) - voltage	1.00000	0.000000	temperature in steel cabinet should be warmer than outside	only archive	Suspicious	Details

Check data quality by setting filters. Configure filters to **detect technical problems**, e.g., ice-effects. AmmonitOR sends **alert emails**, immediate actions can follow.

Month/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2010-01	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-02	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-03	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-04	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-05	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-06	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-07	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-08	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-09	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-10	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-11	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2010-12	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-01	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-02	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-03	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-04	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-05	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-06	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-07	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-08	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-09	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-10	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-11	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2011-12	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2012-01	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2012-02	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Total completeness: 98.69%

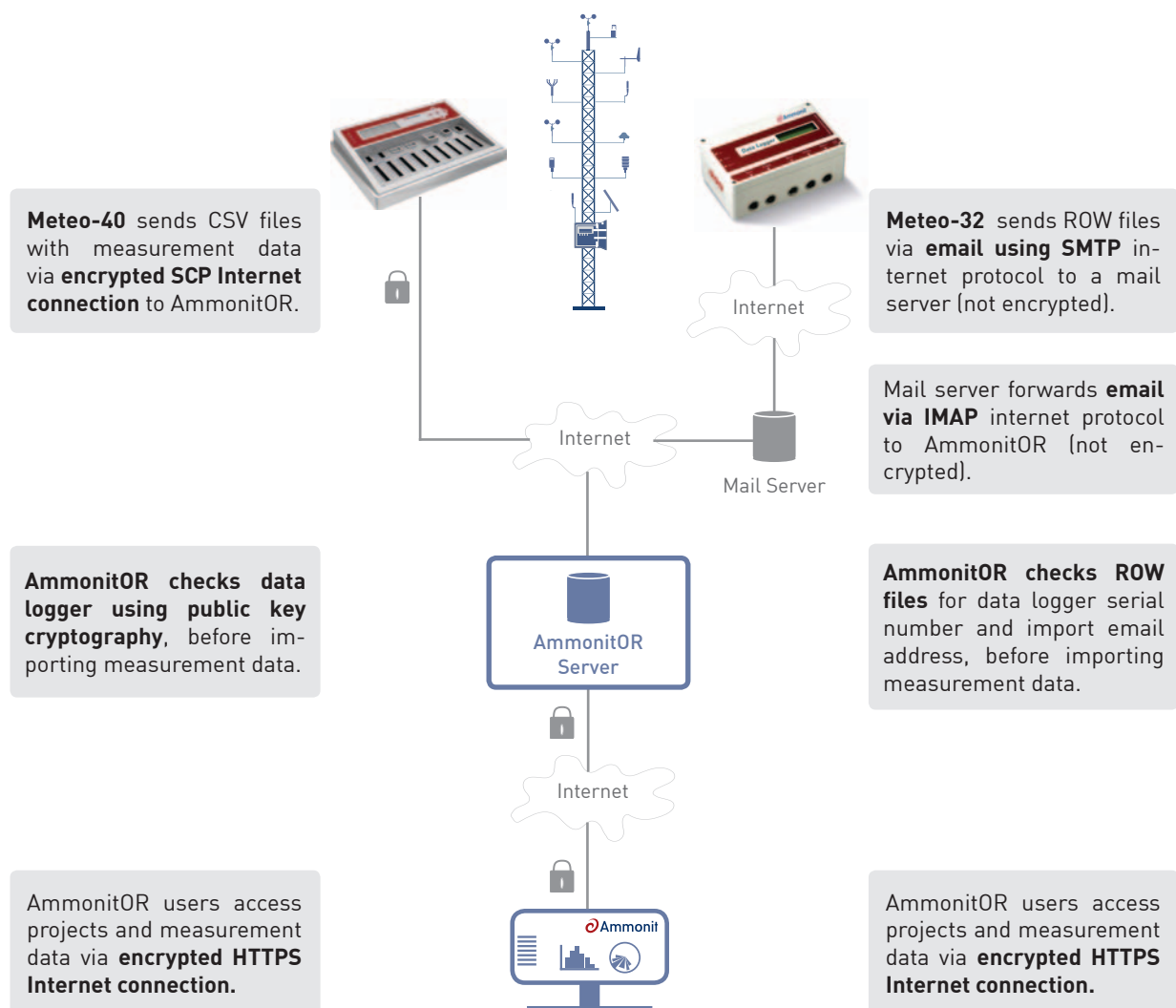
Monitor the completeness of the measurement in the **data calendar**. Days with missing data are marked. Click on the day to validate your measurements.

AmmonitOR - Ammonit Online Report

Interaction between AmmonitOR, data logger and user

Use AmmonitOR to conveniently manage measurement campaigns from your office desk. Once the data transfer has been configured and activated, Ammonit data loggers automatically send measurement data to the requested AmmonitOR project. AmmonitOR reliably checks and imports CSV and ROW files. If you install Meteo-40 data loggers, the data transfer is encrypted from the starting point to the import in AmmonitOR. Users access their accounts via an encrypted HTTPS internet connection.

Your valuable measurement data is securely transmitted using Ammonit!



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