

# bazefield®

Wind Farm Management System



## User Manual

## Bazefield Alarm Log

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## 1 DOCUMENT HISTORY

Revision	Change/reason	Date	Sign
1.0	Created	2014-08-12	Frode Floen
1.1	Added functional description and screenshots	2014-09-16	Stian Ruud
1.2	Revised for Bazefield 7	2017-03-09	DKG

## 2 PURPOSE OF THIS DOCUMENT

The purpose of this manual is to give end user instructions on how to use the Bazefield Alarm application.

The manual gives an overview of how the different parts of the system and also covers typical usage scenarios.

### 2.1 CONVENTIONS

The following symbols are used in this document:



This symbol indicates important information

**Bold**

Bold text indicates name of parameters, files and other configuration items.



This symbol indicates tips and useful information

### 3 USING ALARM LOG

Alarm log is an efficient application for look up, analysis and reporting for all alarms and warnings from any of the turbines in the system. The filter is used to easily select desired turbines and time-periods.




The application consists of two views, **Alarms** and **Statistics**. Both views utilize the filter to show alarms for the applied turbines and time periods. Both views also make use of the alarm type filter.

### 4 ALARM LOG LIST

The alarm log list includes functions like search, filter, sort and export.

The alarm list shows an icon representing the alarm type, turbine, alarm code, alarm description and start- and end time. By default the list is sorted by start, with the newest alarms on top, but all columns may be sorted by clicking on the headings.

There are 3 types of alarm messages:

-  Warning
-  Stop
-  Information

Use the search field to search for a specific alarm code or description.

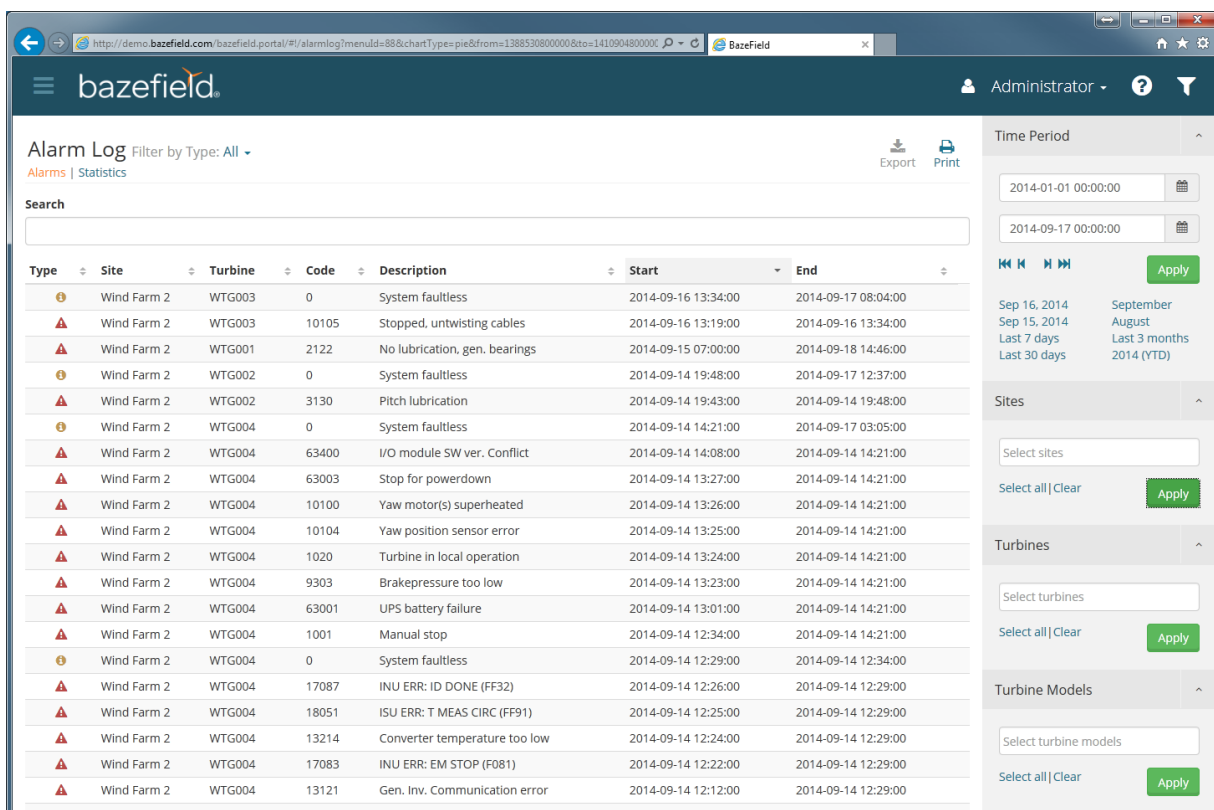


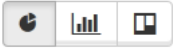
Figure 1 Alarm Log list

5 STATISTICS

The statistics page offers a convenient overview on what alarms are most common. It includes graphs for the top 10 alarm distribution, KPIs and a more detailed list of the visual presentation.

5.1 TOP 10 ALARMS GRAPH

The top 10 alarm graph displays the most common 10 alarms in a pie chart, bar chart or waterfall chart. The chart type is selected by these buttons.



By default the report displays the most common alarms by how many times the appeared (frequency). By switching to duration, the report shows the ratio between the length of the overall time of the alarms.

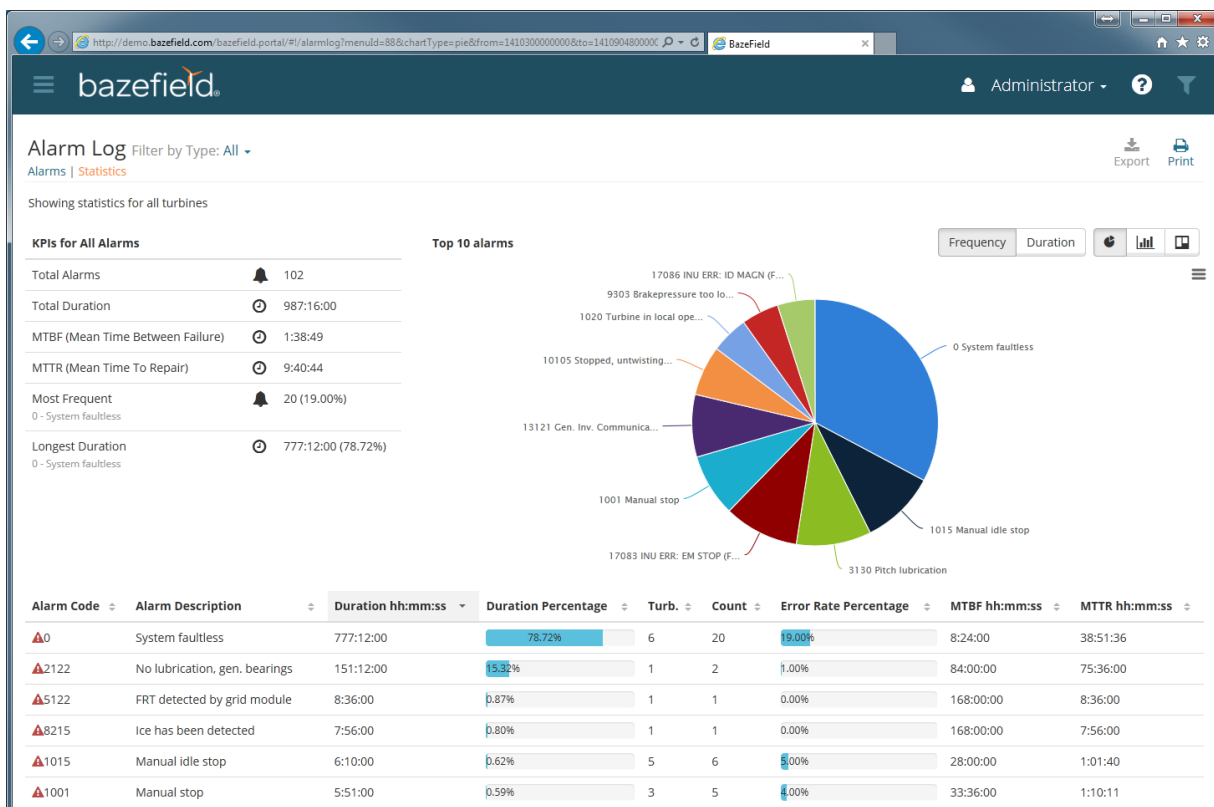


Figure 2 Statistics

The chart may be exported to images in different formats, pdfs or svg vector images by clicking on the button in the upper right corner of the chart, as shown in the image below.

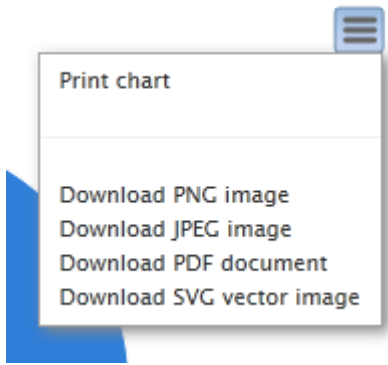


Figure 3 Exporting graphs

## 5.2 KEY PERFORMANCE INDEXES

By default the KPIs shows information for all the alarms returned for the selected parameters in the filter. In the example below, the KPI area shows alarms for a turbine in a one month period.

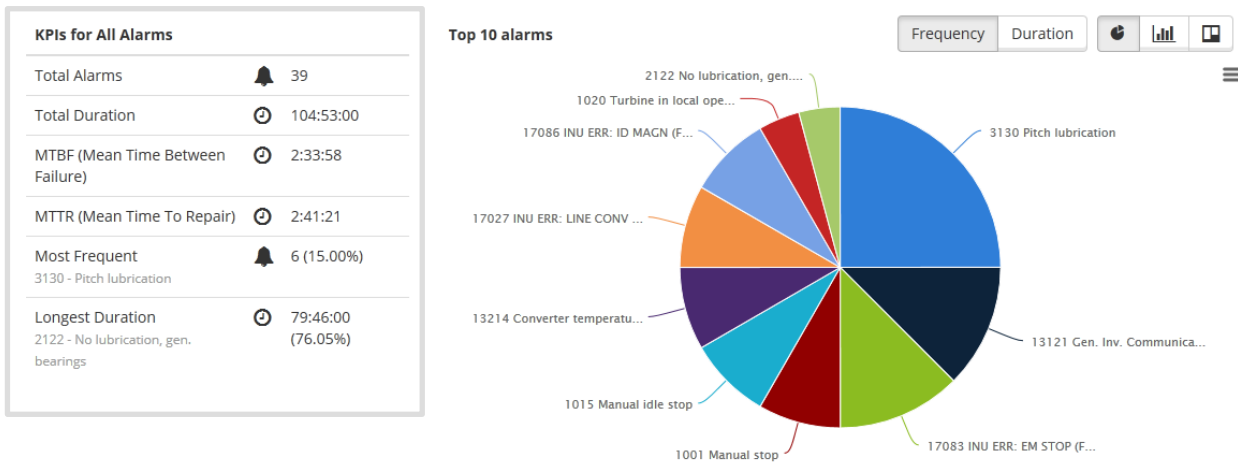


Figure 4 KPIs for all alarms selected by the filter

By clicking on a pie in the chart, the KPIs changes to only display KPIs for that specific alarm message. A blue information box also appears to make the user aware of this. Click once again on the selected pie or the provided link in the message to display the KPIs for all alarms.

13121 Gen. Inv. Communication error	
Total Alarms	🔔 3
Total Duration	🕒 0:30:00
MTBF (Mean Time Between Failure)	🕒 33:21:40
MTTR (Mean Time To Repair)	🕒 0:10:00
Error Rate Percentage	📊 7.00%
Duration Percentage	📊 0.48%

Showing kpi's for selected alarm. To see all alarms deselect or [click here](#).

Top 10 alarms

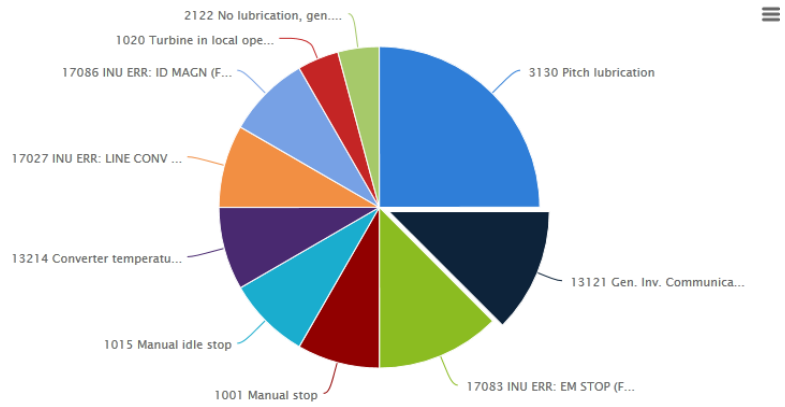


Figure 5 KPIs for a specific alarm message selected in the chart

### 5.3 DETAILS

The details list shows all alarms with the same KPIs as when selecting a pie in the chart.



