

## Introduction

The EVN-Monitor is a real-time monitoring system for all EVN stations. The EVN-Monitor is able to track all items from the NASA Field System System Status Monitor, this include parameters such as weather information, clock offsets, TSYS measurements, etc. A full list of items which can be tracked is listed below.

The EVN-Monitor system was originally developed as part of the JUMPING JIVE project, the service is hosted by JIVE. The system is based on the Zabbix monitoring software.

The service can be reached at <https://evn-monitor.jive.eu>

## Start contributing

To contribute to the EVN Monitor please send your **public** ssh key to [keimpema \[at\] jive.eu](mailto:keimpema@jive.eu). We will also need the IP (range) from which you will be accessing the EVN Monitor so we can whitelist you in our firewall.

An account will then be created and you will receive your username via email.

Uploading data to the EVN Monitor is done by calling a program called **datasend** over ssh. For example to upload a windspeed of 10 km/h is done by calling

```
ssh username@evn-monitor.jive.eu datasend ERC.WINDSPEED 10.0
```

Where in the above example username should be replaced with the username you received after your account was created.

A full list supported items that can be tracked by the EVN monitor is listed in Appendix A, this list can also be obtained from **datasend** by calling

```
ssh username@evn-monitor.jive.eu datasend -l
```

```
Valid keywords = ['ERC.ANTENNA', 'ERC.AZIMUTH', 'ERC.CABLE', 'ERC.CATALOGYEAR',  
'ERC.CHECKS', 'ERC.DEC', 'ERC.DOTMON', 'ERC.DOTMON2', 'ERC.ELEVATION', 'ERC.FBFREE',  
'ERC.HALT', 'ERC.HUMIDITY', 'ERC.IF1', 'ERC.IF2', 'ERC.IF3', 'ERC.IF4', 'ERC.LOG', 'ERC.MODE',  
'ERC.NEXTTIME', 'ERC.PRESSURE', 'ERC.RA', 'ERC.RATE', 'ERC.SCHEDULE', 'ERC.SOURCE',  
'ERC.TEMPERATURE', 'ERC.TIME', 'ERC.TRACKINGSTATE', 'ERC.WINDDIRECTION',  
'ERC.WINDSPEED', 'ERC.WINDLIMIT']
```

Furthermore, general help can be gotten by calling

```
ssh username@evn-monitor.jive.eu datasend -h
```

usage: datasend [-h] [-t TIME] [-l] KEYWORD value

Upload items into the EVN-Monitor

positional arguments:

KEYWORD Name of item, e.g. ERC.WINDSPEED; Use --list for a full list of keywords

value The value of the item to be logged

optional arguments:

-h, --help show this help message and exit

-t TIME, --time TIME Time of data point as number of seconds since 1970 aka unix time. Default: the current time when this script is called.

-l, --list Show list of accepted keywords

### Supported Keywords

Below is a table of all supported keywords, items in bold are recommended items for an initial set of parameters to contribute.

Keyword	Unit	Help
ERC.ANTENNA	Text	Antenna name
ERC.AZIMUTH	Degrees	Antenna azimuth
ERC.CABLE	ps	Cable delay
ERC.CATALOGYEAR	Year	Year of astronomical catalogue used
ERC.CHECKS	Text	Activated NASA Field System checks
ERC.DEC	Text	Declination of Source
<b>ERC.DOTMON</b>	<b>µs</b>	<b>Clock delay (GPS - FMOUT)</b>
<b>ERC.DOTMON2</b>	<b>µs</b>	<b>Clock delay (GPS - FMOUT)</b>
ERC.ELEVATION	Degrees	Antenna elevation
ERC.FBFREE	TB	Free disk space on flexbuff
ERC.HALT	Text	Scheduling halt status

<b>ERC.HUMIDITY</b>	<b>%</b>	<b>Meteorological humidity</b>
ERC.IF1	Kelvin	System temperature of IF channel 1
ERC.IF2	Kelvin	System temperature of IF channel 2
ERC.IF3	Kelvin	System temperature of IF channel 3
ERC.IF4	Kelvin	System temperature of IF channel 4
ERC.LOG	Text	Current log file name
ERC.MODE	Text	Mode
ERC.NEXTTIME	Text	Time of next activity
<b>ERC.PRESSURE</b>	<b>hPa</b>	<b>Meteorological pressure</b>
ERC.RA	Text	Right ascension of source
ERC.RATE	Text	Rate
ERC.SCHEDULE	Text	Current schedule
ERC.SOURCE	Text	Source name
<b>ERC.TEMPERATURE</b>	<b>Celcius</b>	<b>Meteorological temperature</b>
ERC.TIME	Text	Current Field System time
ERC.TRACKINGSTATE	Text	Current tracking state
<b>ERC.WINDDIRECTION</b>	<b>Degrees</b>	<b>Wind direction</b>
<b>ERC.WINDSPEED</b>	<b>km/h</b>	<b>Wind speed</b>
<b>ERC.WINDLIMIT</b>	<b>km/h</b>	<b>Wind speed limit (max speed before antenna is stowed)</b>