

# TraNET FE as Autonomous Data-Logger

Summary of relevant information how to use the TraNET FE as an autonomous Data Logger



*Fast High Precision Data Acquisition Systems*



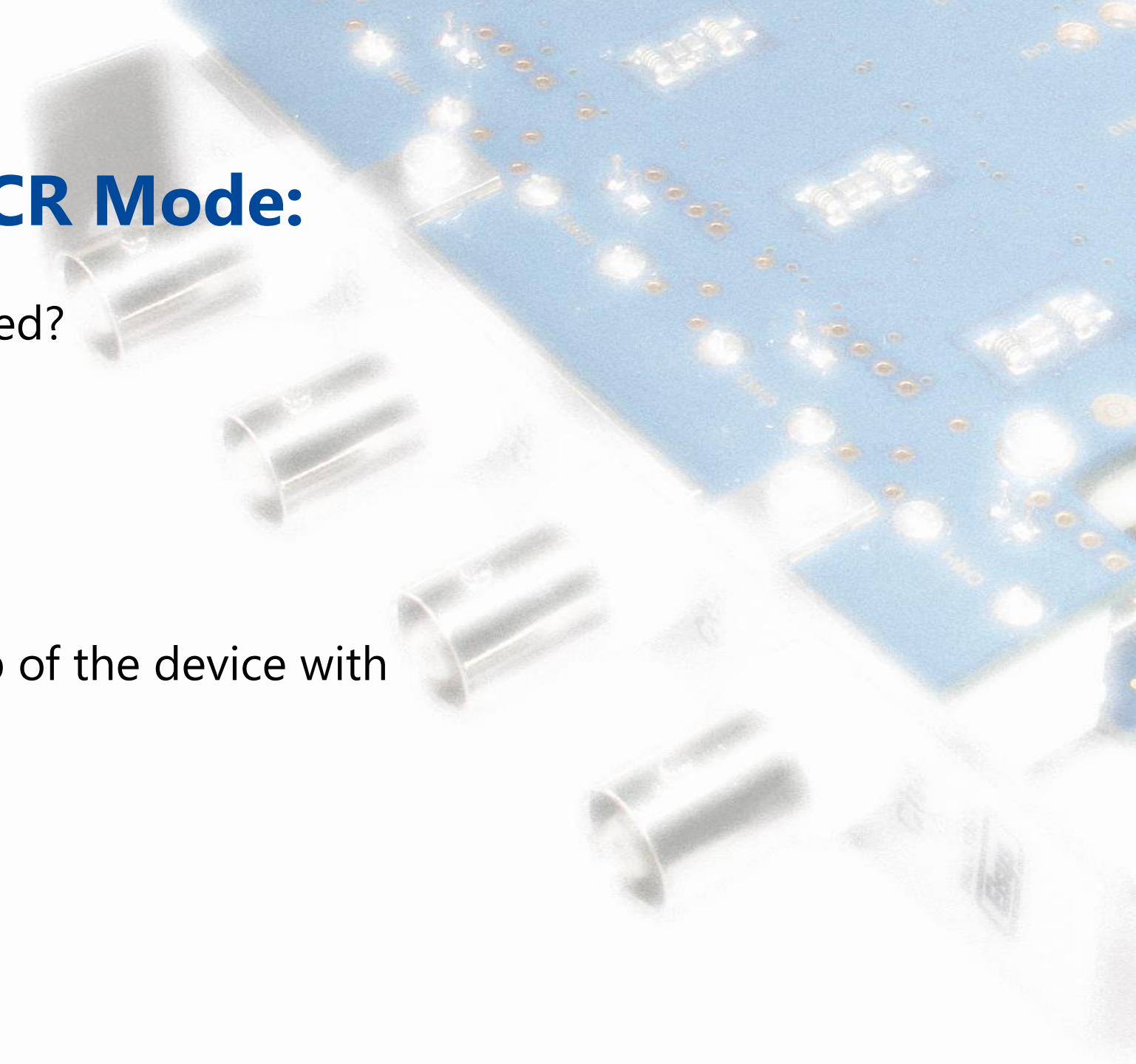
# In Continuous or ECR Mode:

How is the measurement started?

- Manually in TranAX

or

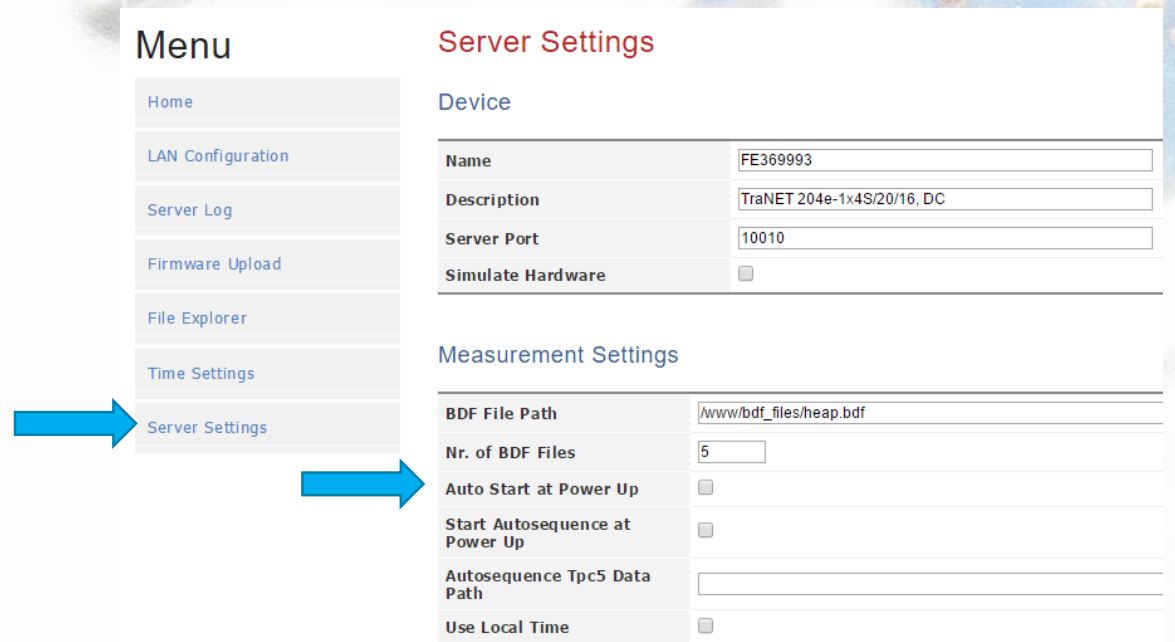
- Autonomous after Power Up of the device with activated Auto Start option



# Activate Auto Start

- Open the Web Browser and type in the IP Address of the device, e.g.: 192.168.0.33
- Click on "Server Settings"
- Activate "Auto Start at Power Up"
- Click on the Save Button!

Once Auto Start is activated, the measurement is started after power-up with the **last hardware setting used on the device.**



Menu	
Home	
LAN Configuration	
Server Log	
Firmware Upload	
File Explorer	
Time Settings	
Server Settings	

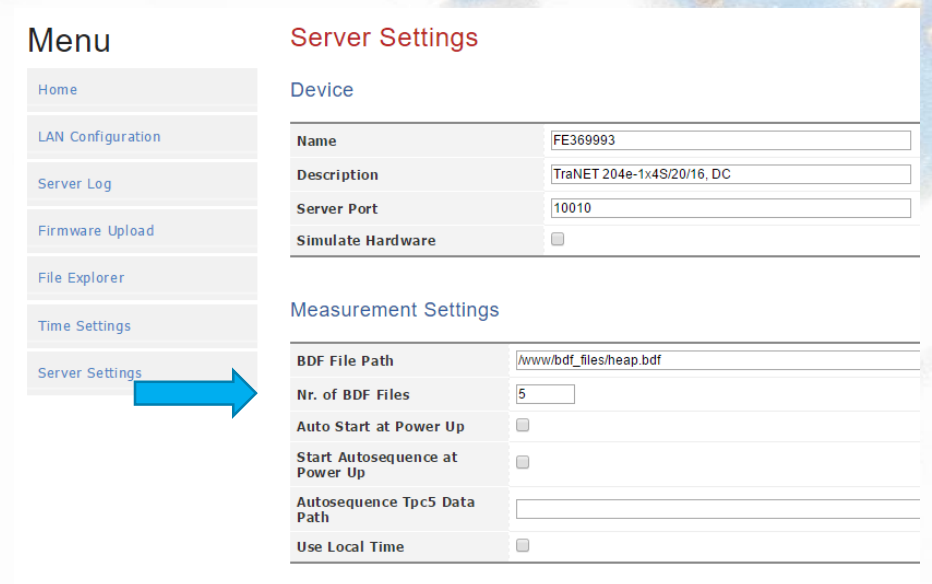
Server Settings	
Device	
Name	FE369993
Description	TraNET 204e-1x4S/20/16, DC
Server Port	10010
Simulate Hardware	<input type="checkbox"/>
Measurement Settings	
BDF File Path	/www/bdf_files/heap.bdf
Nr. of BDF Files	5
Auto Start at Power Up	<input checked="" type="checkbox"/>
Start Autosequence at Power Up	<input type="checkbox"/>
Autosequence Tpc5 Data Path	
Use Local Time	<input type="checkbox"/>

# When does the measurement stop?

- When the maximum recording length is reached which is defined for Continuous or ECR Mode  
or
- The maximum number of blocks in ECR is reached  
or
- Hard-disk is full

Once the measurement is stopped the data is stored in a file called heap0\_x.bdf on the internal hard-disc of the device. X is an up-counting number.

On the device website the maximum number of heap files which were kept on the drive can be defined. If the measurement is started again, a new heap file is generated. The oldest file will be deleted once the number of defined heap file is generated.



The screenshot displays the web interface of the device. On the left is a 'Menu' sidebar with items: Home, LAN Configuration, Server Log, Firmware Upload, File Explorer, Time Settings, and Server Settings. A blue arrow points to 'Server Settings'. The main content area is titled 'Server Settings' and is divided into three sections:

- Device**:
  - Name: FE369993
  - Description: TraNET 204e-1x4S/20/16\_DC
  - Server Port: 10010
  - Simulate Hardware:
- Measurement Settings**:
  - BDF File Path: /www/bdf\_files/heap.bdf
  - Nr. of BDF Files: 5
  - Auto Start at Power Up:
  - Start Autosequence at Power Up:
  - Autosequence Tpc5 Data Path:
  - Use Local Time:

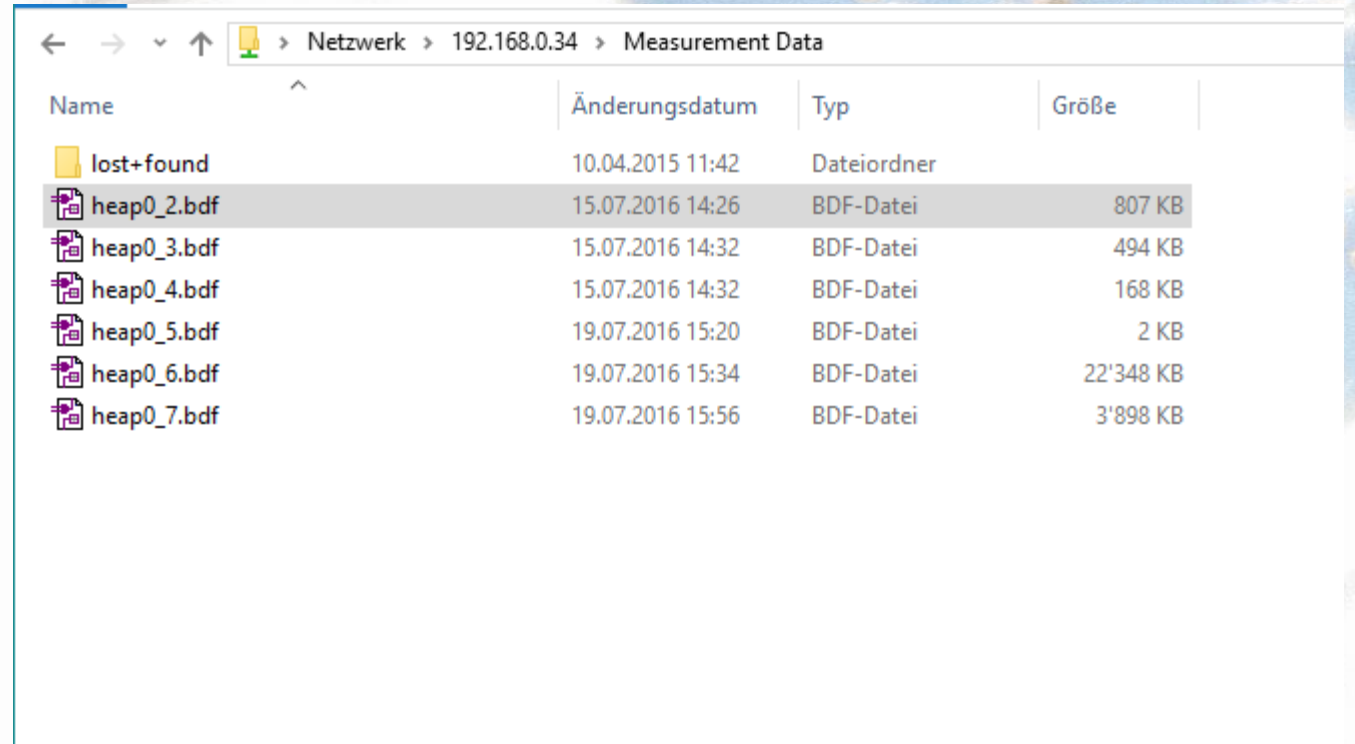
# Where can I find all these Heap files?

Type in the Windows File Manager the IP Address of your device e.g.:

[\\192.168.0.34](https://192.168.0.34)

Click on the folder "Measurement Data"

This folder contains all stored BDF Files. These files can be copy to your local hard disc and can be opened by TranAX 3 or 4 directly.

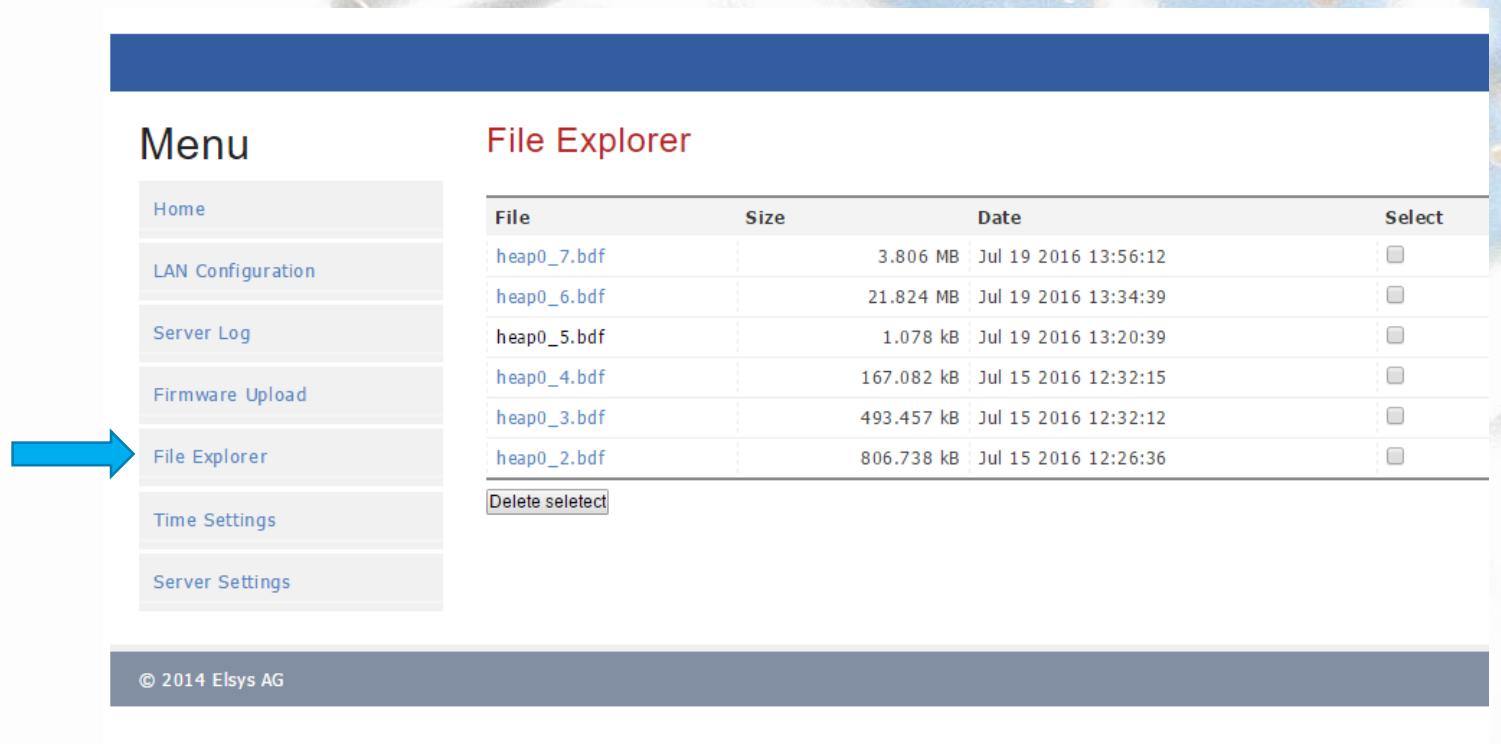


# Where can I find all these Heap files?

The files can also be found on the device Webpage.

Click on a file for download

Older devices have no website. The files can be accessed over FTP protocol.



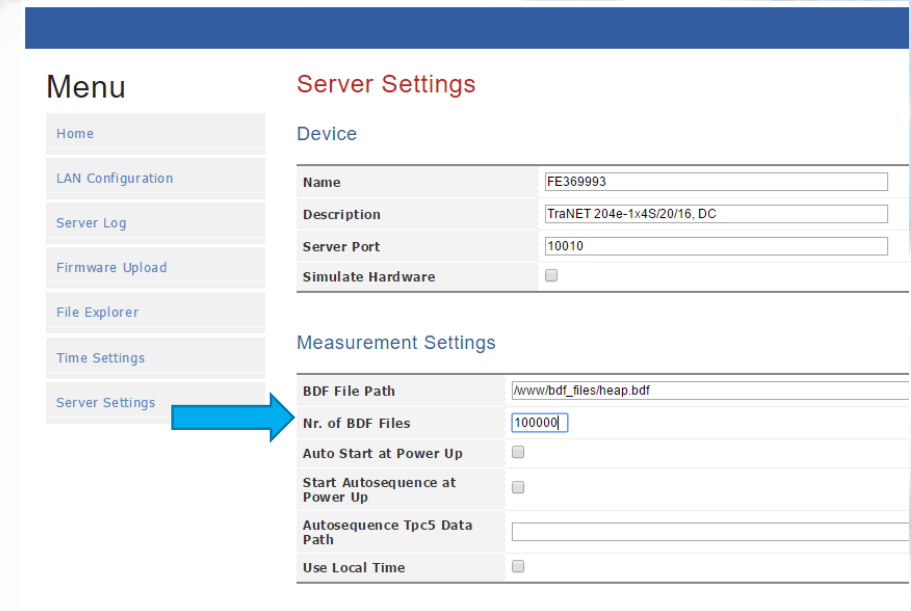
The screenshot displays a web interface with a dark blue header and a light blue footer. On the left, a 'Menu' sidebar contains several items: Home, LAN Configuration, Server Log, Firmware Upload, File Explorer (highlighted with a blue arrow), Time Settings, and Server Settings. On the right, the 'File Explorer' section shows a table of files with columns for File, Size, Date, and Select. Below the table is a 'Delete selected' button. The footer contains the copyright notice '© 2014 Elsys AG'.

File	Size	Date	Select
heap0_7.bdf	3.806 MB	Jul 19 2016 13:56:12	<input type="checkbox"/>
heap0_6.bdf	21.824 MB	Jul 19 2016 13:34:39	<input type="checkbox"/>
heap0_5.bdf	1.078 kB	Jul 19 2016 13:20:39	<input type="checkbox"/>
heap0_4.bdf	167.082 kB	Jul 15 2016 12:32:15	<input type="checkbox"/>
heap0_3.bdf	493.457 kB	Jul 15 2016 12:32:12	<input type="checkbox"/>
heap0_2.bdf	806.738 kB	Jul 15 2016 12:26:36	<input type="checkbox"/>

# Splitting up the Measurement

It can be useful splitting up the measurement in several BDF files. This simplifies file handling as they are smaller. An application could be having a file per day or a file per hour.

First, the number of kept BDF Files on the disk must be big enough. Set the "Nr. Of BDF Files" to a high value, for example 100'000.

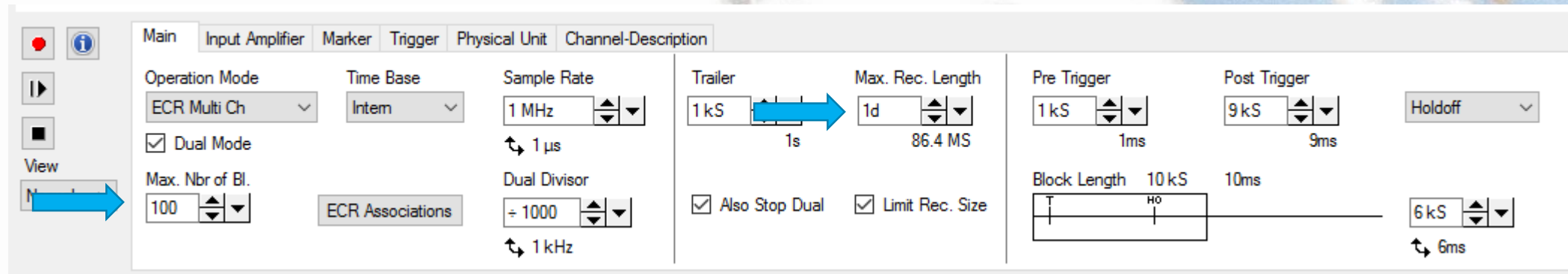


The screenshot shows a web interface with a blue header. On the left is a 'Menu' with items: Home, LAN Configuration, Server Log, Firmware Upload, File Explorer, Time Settings, and Server Settings. A blue arrow points from 'Server Settings' to the right-hand panel. The right panel is titled 'Server Settings' and contains two sections: 'Device' and 'Measurement Settings'. The 'Device' section has fields for Name (FE369993), Description (TraNET 204e-1x4S/20/16\_DC), Server Port (10010), and a checkbox for Simulate Hardware. The 'Measurement Settings' section has fields for BDF File Path (/www/bdf\_files/heap.bdf), Nr. of BDF Files (100000), Auto Start at Power Up, Start Autosequence at Power Up, Autosequence Tpc5 Data Path, and Use Local Time.

Menu	
Home	
LAN Configuration	
Server Log	
Firmware Upload	
File Explorer	
Time Settings	
Server Settings	

Server Settings	
Device	
Name	FE369993
Description	TraNET 204e-1x4S/20/16_DC
Server Port	10010
Simulate Hardware	<input type="checkbox"/>
Measurement Settings	
BDF File Path	/www/bdf_files/heap.bdf
Nr. of BDF Files	100000
Auto Start at Power Up	<input type="checkbox"/>
Start Autosequence at Power Up	<input type="checkbox"/>
Autosequence Tpc5 Data Path	
Use Local Time	<input type="checkbox"/>

# Splitting up the Measurement



Configure your measurement, in the example above, the measurement is stopped after 1 day or when 100 ECR Events has been recorded.

Start your measurement at least once for testing, otherwise the setting is not stored on the device!

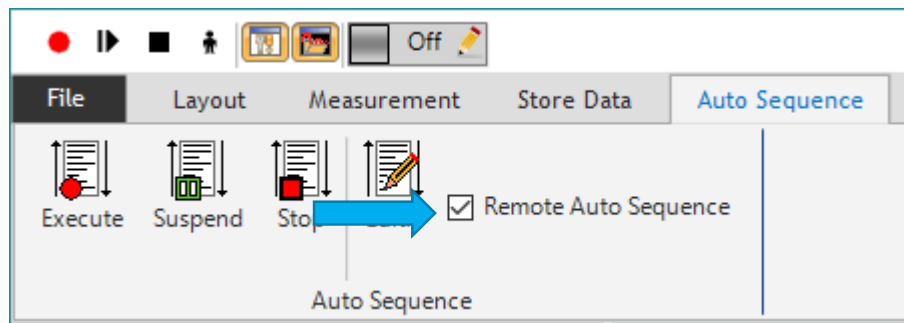


# Splitting up the Measurement

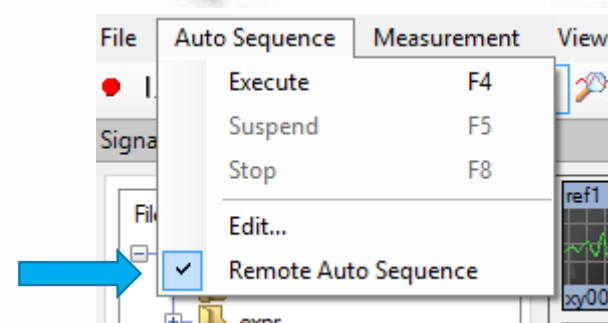
Now we have to set-up a Remote Auto Sequence in TranAX:

- Activate the Option "Remote Auto Sequence" in TranAX
- Click on "Edit" for defining an Auto Sequence

TranAX 4



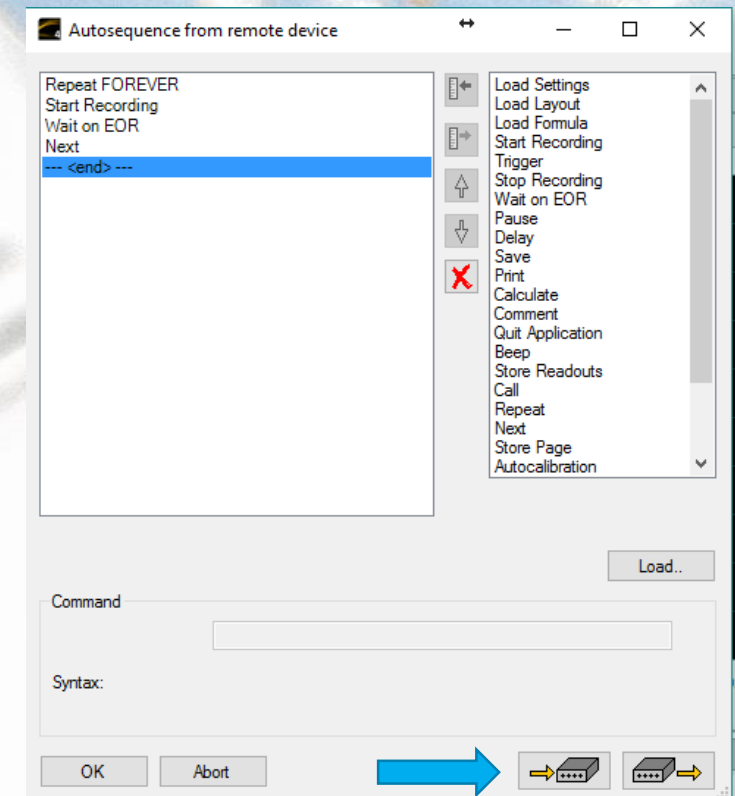
TranAX 3



# Splitting up the Measurement

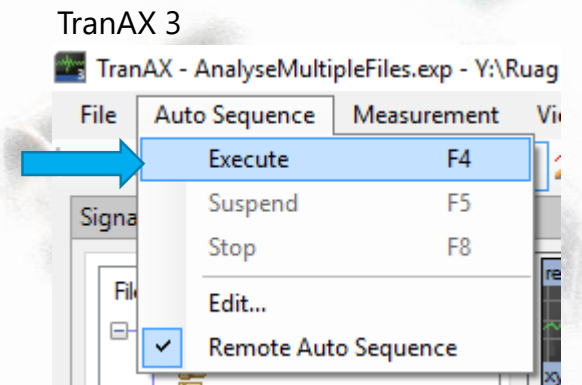
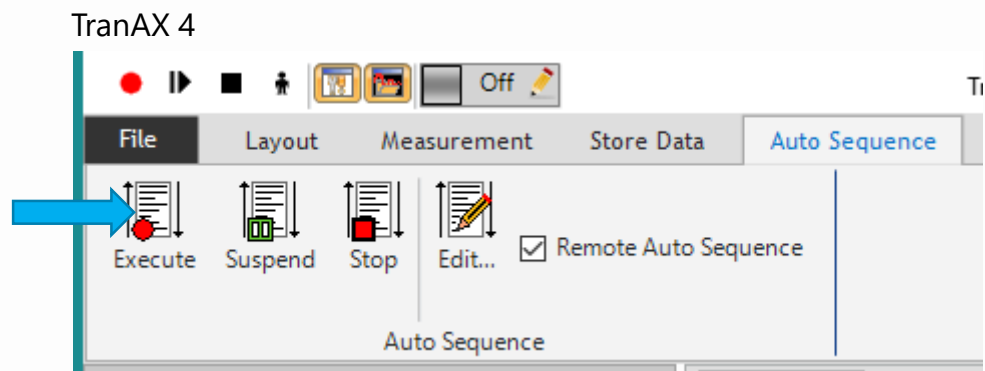
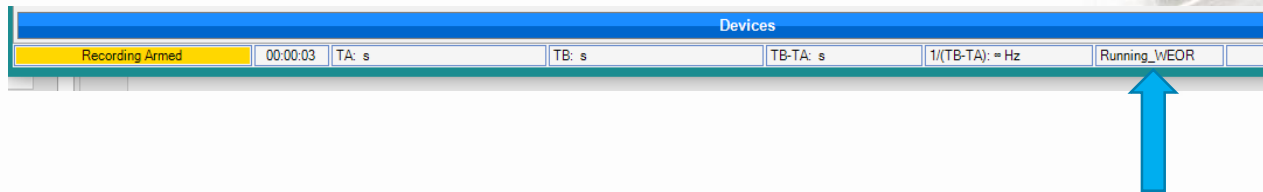
Now we have to set-up a Remote Auto Sequence in TranAX:

- Build-up an Auto Sequence as shown on the picture
- This sequence will start the measurement, wait until it stops and starts the measurement again
- You can limit the number of iteration by changing FOREVER to a fixed number.
- Upload the sequence to the device by click on the upload button
- The sequence is now stored on the device an will also run even when TranAX is closed.



# Starting the Remote Auto Sequence

For testing the remote Auto Sequence click on "Execute" in the Auto Sequence Menu. The measurement will start and you can see the state of the Auto Sequence in the Status Bar at the bottom of TranAX.



# Starting the Remote Auto Sequence

If the Auto Sequence should start at power up, activate “Start Autosequence at Power Up” on the Server Settings Web Page of the device.

## Menu

Home
LAN Configuration
Server Log
Firmware Upload
File Explorer
Time Settings
Server Settings



## Server Settings

### Device

Name	FE369993
Description	TraNET 204e-1x4S/20/16, DC
Server Port	10010
Simulate Hardware	<input type="checkbox"/>

### Measurement Settings

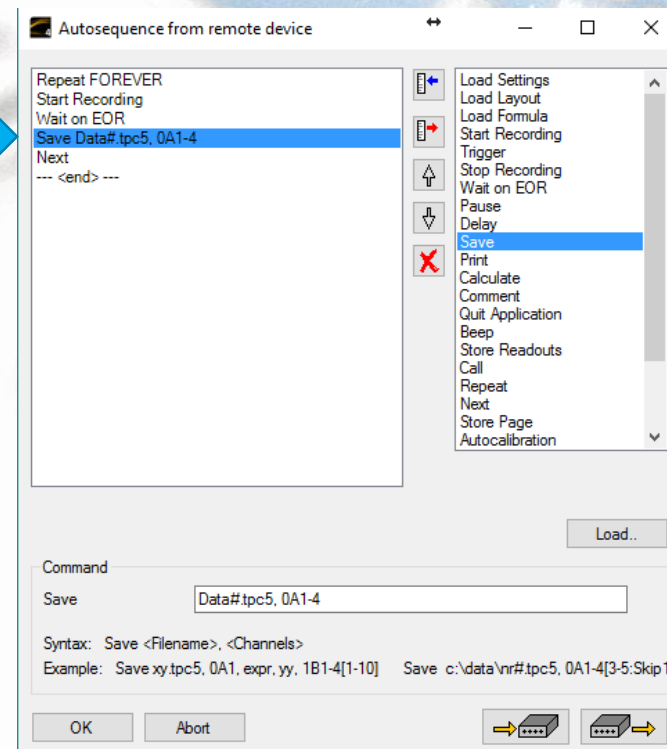
BDF File Path	/www/bdf_files/heap.bdf
Nr. of BDF Files	100000
Auto Start at Power Up	<input type="checkbox"/>
Start Autosequence at Power Up	<input checked="" type="checkbox"/>
Autosequence Tpc5 Data Path	
Use Local Time	<input type="checkbox"/>

# Scope or Multiblock Mode

These two modes doesn't generate any BDF files as the measurement data are kept in the on-board memory of the measurement card.

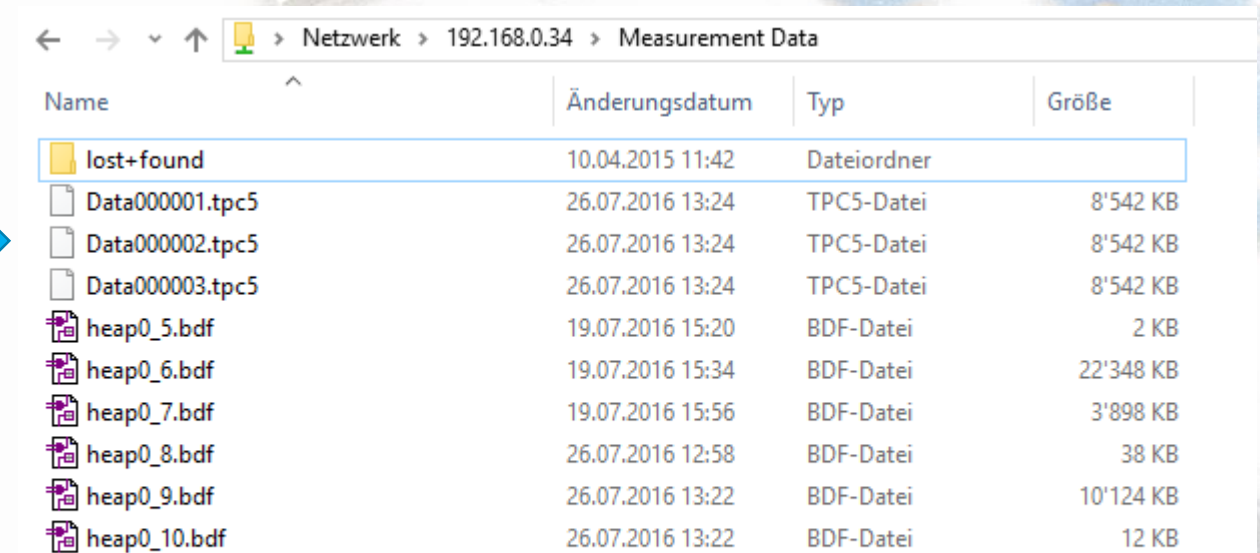
The Remote Auto Sequence can also be used but a Save command must be inserted:

- The Line "Save Data#.tpc5, 0A1-4 will save channel A1- A4 when the measurement is stopped in a file called Data#.tpc5 where # is automatically replaced by an up-counting number.
- Once the Auto Sequence is changed, click again on "Upload to Device" for having the actual sequence on the device.



# Scope or Multiblock Mode

In the File Explorer you will see that after each measurement a TPC5 file is generated on the disk.

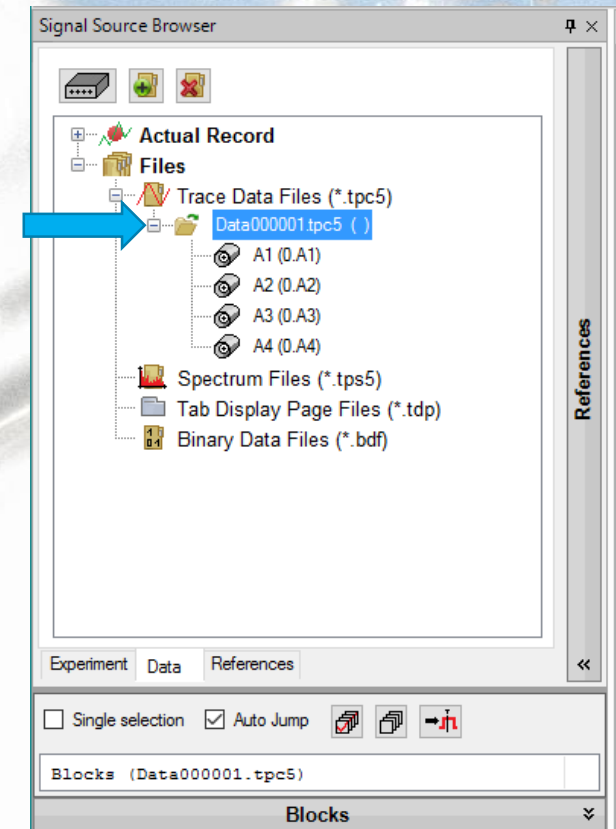
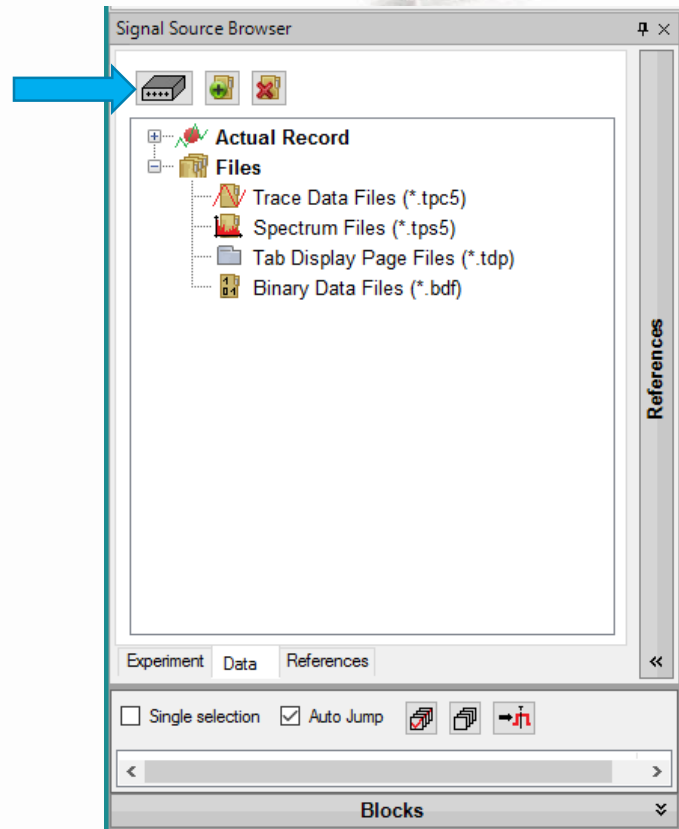


The screenshot shows a File Explorer window with the address bar set to 'Netzwerk > 192.168.0.34 > Measurement Data'. The file list is as follows:

Name	Änderungsdatum	Typ	Größe
lost+found	10.04.2015 11:42	Dateiordner	
Data000001.tpc5	26.07.2016 13:24	TPC5-Datei	8'542 KB
Data000002.tpc5	26.07.2016 13:24	TPC5-Datei	8'542 KB
Data000003.tpc5	26.07.2016 13:24	TPC5-Datei	8'542 KB
heap0_5.bdf	19.07.2016 15:20	BDF-Datei	2 KB
heap0_6.bdf	19.07.2016 15:34	BDF-Datei	22'348 KB
heap0_7.bdf	19.07.2016 15:56	BDF-Datei	3'898 KB
heap0_8.bdf	26.07.2016 12:58	BDF-Datei	38 KB
heap0_9.bdf	26.07.2016 13:22	BDF-Datei	10'124 KB
heap0_10.bdf	26.07.2016 13:22	BDF-Datei	12 KB

# Open BDF or TPC5 directly from the device

- Open the Signal Source Browser in TranAX
- Click on the Device Icon
- Select a TPC5 or BDF File
- Drag and Drop the file from the Signal Source Browser to a Waveform





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