

# Data Share System Guide

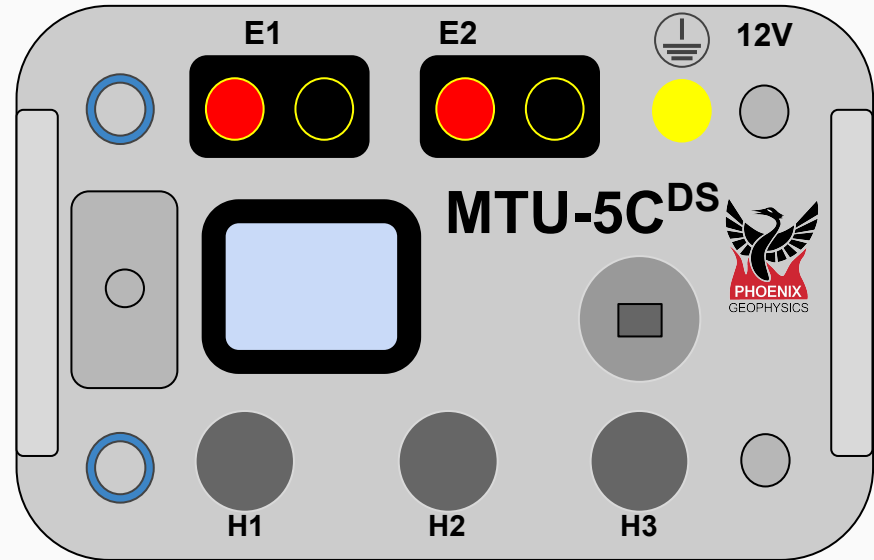


Data Share Feature in MTU-5C <sup>DS</sup> .....	2
Data Sharing Use Cases .....	3
Data Share In 3 Easy Steps .....	4
Define the network .....	5
Setting up the client computer - Example ...	6
Enabling Data Sharing in the Receiver .....	7
Transfer data in real time .....	8
Using Real Time Data in EMpower .....	10
Technical Support Contact .....	11

# Data Share Feature - MTU-5C<sup>DS</sup>

On top of the features already known for the MTU-5C family, the new receiver models with the “DS” (Data Share) superscript, such as the MTU-5C<sup>DS</sup> offer real-time data monitoring in the field while recording.

In contrast with the Remote Data Upload network feature, also present in all models of the MTU-5C family, The Data Share network feature doesn't require an internet connection or the setup of a server or modem. This feature enables users to extract recording segments directly to a computer, allowing the user to evaluate an ongoing recording at the field without interrupting it.



The Data Share feature available for the MTU-5C<sup>DS</sup> is a network function. Keep in mind that only one network function can be enabled at a time (*i.e.* Data Share, Network Upload, Live Monitoring).

# Data Sharing Use Cases

1

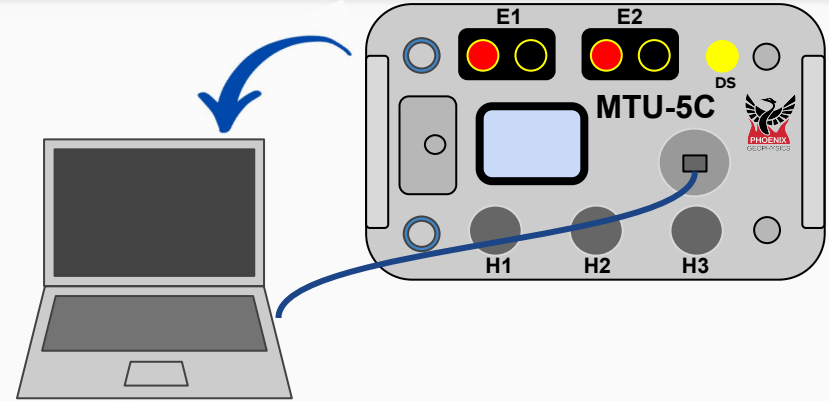
Gather and analyze data in areas without internet coverage, enabling effective decision-making and timely responses

2

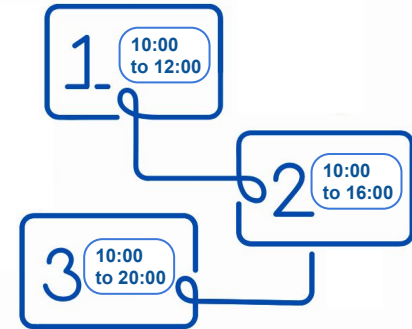
Ensure the quality of recorded data without having to stop the ongoing recording

3

Check if enough data have been collected to reach the lowest frequencies required

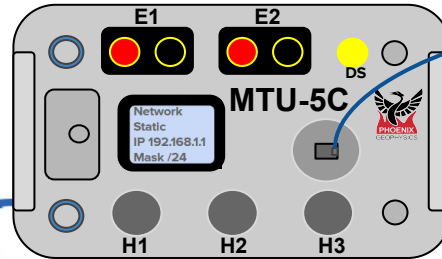


*EMpower Project*



# Data Share In 3 Easy Steps

*Evaluate data in real time  
(no internet access required)*



*Assign two different fixed IP's in the same network:*

- Computer
- Phoenix Receiver

**1**

*Create a Config file using the defined IP's and start the recording*

**2**

*Connect the receiver directly to your computer with an Ethernet cable, and transfer the recordings from the receiver's SD card to your laptop*

**3**

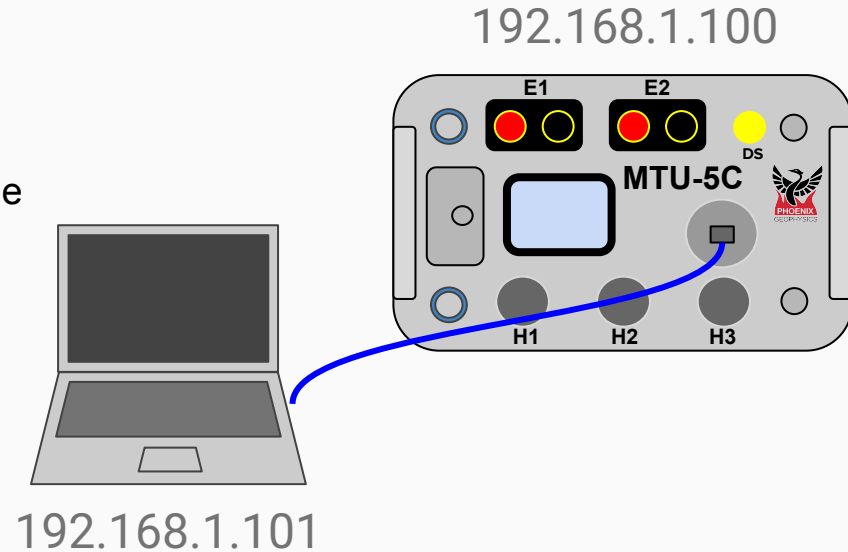
# Define the network

To establish communication between the Receiver and the external computer (Client), a network must be configured.

Assign an IP address to the Receiver, an IP address to the computer, and set a netmask, ensuring that all are within the same subnet

We recommend consulting an IT professional, but as an *easy-setup*, we can suggest the following network parameters

- Receiver IP: 192.168.1.100
- Computer IP: 192.168.1.101
- Netmask: 255.255.255.0



# Setting up the client computer - Example

The instructions in this page will change depending on the operating system. To give an *easy-setup* example, in this manual, we provide instructions using Windows 11 and simple configuration values. Adjust these instructions and settings according to the OS and recommendations from IT.

Note that the values provided in the text to the right are for the *easy-setup* example. You may change those values with the help of an IT expert.

Note that after you finish, it may be necessary to return the ethernet interface to DHCP mode to reconnect to local or office network.

## Windows 11 instructions:

1. Click **Start**, then type *settings*. Select **Settings** > **Network & internet**.
2. Select **Ethernet**, then select the Ethernet device that will use for connecting
3. Next to IP assignment, select **Edit**
4. Under Edit network IP settings or Edit IP settings, select **Manual**, then turn on IPv4
5. Type the following (*example setup*)
  - 5.1. **IP address:** 192.168.1.101
  - 5.2. **Subnet mask:** 255.255.255.0
  - 5.3. **Gateway:** <Empty>
6. Save the configuration

# Enabling Data Sharing in the Receiver

While creating the configuration file for the receiver (for more details consult the Quick Start Guide for your Receiver), take the following additional steps to enable the *Data Share* function:

1. In **EMpower** / Prepare / Configuration Creator, select the **NET** channel
2. In the **Network Settings** section
  - 2.1. Select **Data Share** mode, then type:
    - o **IP Address**: 192.168.1.100
    - o **Network mask**: 255.255.255.0
    - o **Default Gateway**: 192.168.1.101
  - 2.2. Define a **SFTP Password** (*The computer will need it to access the data in the SD card*)

The screenshot shows the 'Configuration Creator - EMpower' interface. On the left, a receiver unit is shown with various channels (E1, E2, H1, H2) and a 'Data Share' button circled in blue. A dashed blue arrow points from this button to the 'Network Settings' window on the right. In the 'Network Settings' window, the 'Channel' dropdown is set to 'NET' (marked with a blue circle '1'). The 'Mode' dropdown is set to 'Data Share' (marked with a blue circle '2.1'). The IP Address is 192.168.1.100, Network Mask is 255.255.255.0, and Default Gateway is 192.168.1.101. The SFTP Password is 'myS3cr3t' (marked with a blue circle '2.2').



The values shown here only apply for the *Data Share easy-setup* example, consult your IT team if you need to change these values.

# Transfer data in real time

Insert the SD card into the MTU/RXU, and start recording (see the [Quick Start Guide](#) if needed).

1. Connect the laptop to the receiver using the Ethernet cable
2. In the computer open a third party SFTP client
  - Configure the connection between the SFTP client and the receiver using the **IP Address** and **SFTP Password** defined in the configuration file created for the receiver
  - The user name and port to be used in the SFTP client are fixed to the following values default
    - Username:** datashare
    - Port:** 22
  - Once connected the SFTP client will show the contents of the SD card in read-only mode.



Config file

Network Settings

Mode: Data Share

IP Address: 192.168.1.100

Network Mask: 255.255.255.0

Default Gateway: 192.168.1.101

SFTP Password: myS3cr3t

sftp://datashare@192.168.1.101 - FileZilla

Host: 192.168.1.100 Username: datashare Password: myS3cr3t Port: 22 Quickconnect

Status: Retrieving directory listing of "/sdcard/log" ...

Status: Listing directory /sdcard/log

Status: Directory listing of "/sdcard/log" successful

Local site: C:\Users\PCASTRO\ Remote site: /sdcard/recdata/10711\_2024-08-23-160214

Filename	Filesize	Filetype	La
..			
.cache		File folder	07
.emp_log		folder	15
.gimp-2.8			

12 files and 58 directories. Total size:

Server/Local file Direc...

Queued files Failed transfers

Download **FileZilla** (shown in this manual) or a different SFTP client from the internet. Please note that Phoenix does not provide support for these SFTP clients. For assistance, contact your IT team.

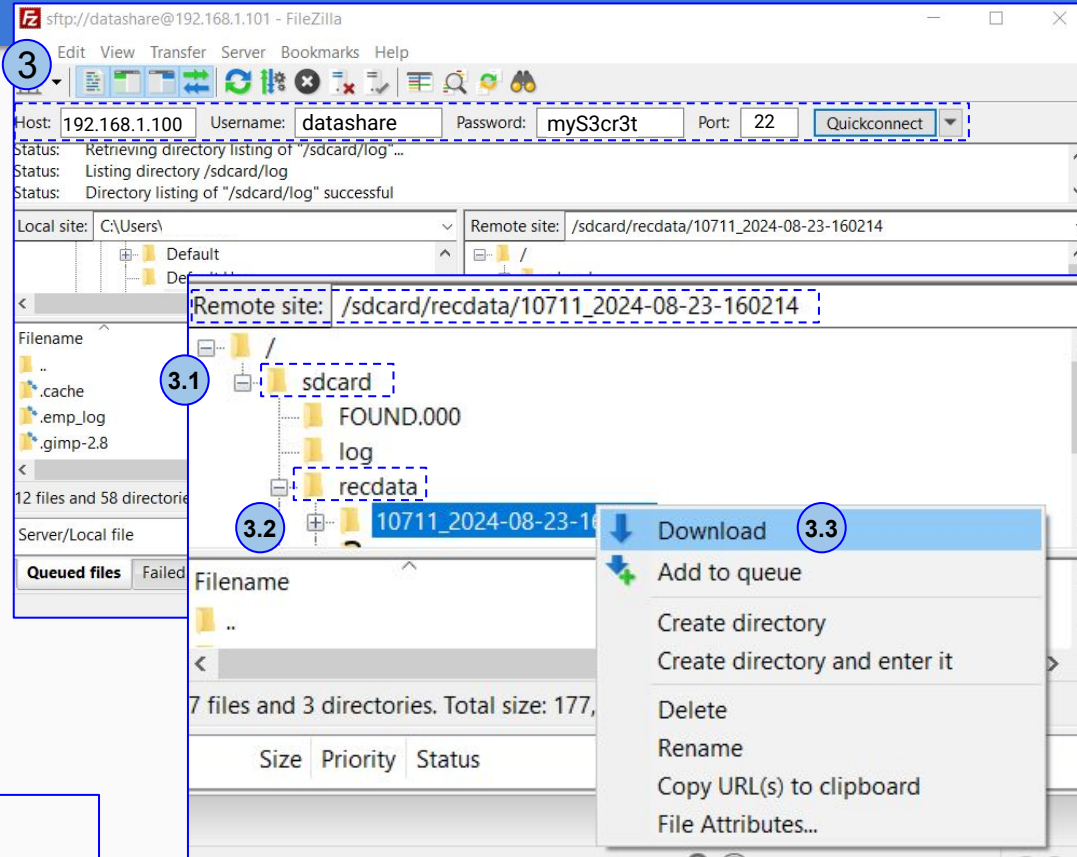


# Transfer data in real time

3. In FileZilla, to transfer a recording to the computer:

- 3.1. Expand the **sdcard** folder from the **Remote Site** view, then expand the **recdata** folder
- 3.2. Right click on the recording of interest (either the ongoing recording or a previous recording)
- 3.3. Click **Download**

*Note that the data of an ongoing recording can take up to 10 minutes to show up in the card after recording start, depending on the decimation rate selected*



*i* For transferring data via an SFTP client other than FileZilla, follow the corresponding instruction manual or consult your IT department.

# Using Real Time Data in EMpower

## 1. Use EMpower Manage module to process the recording

- To copy the data to a project, either select **Import Recording** (*Ctrl+I*) from the **File** menu or simply drag and drop the recording from the File Explorer into the Timeline or Map

## 2. The recording will appear in the Map and Timeline

- A colour gradient will be displayed to identify an ongoing recording
- The **Recording Information** section will display **"Ongoing"** at the end of the **"Stop time"** field

## 3. To update the data

- Repeat steps from pages 8-10 as needed
- When a recording that already exists in EMpower is imported into the project with newer data, the view in EMpower will be updated, keeping any metadata (i.e. dipole length, notes, etc) as defined last by the user

The screenshot displays the EMpower software interface. The **File** menu is open, with **Import Recordings** (Ctrl+I) highlighted. A blue dashed arrow labeled '1' points from this menu item to a File Explorer window. The File Explorer shows a folder named 'Data Sahre files' containing a recording file named '2024-06-14 11:58:49'. A blue dashed arrow labeled '2' points from this file to the Map view. The Map view shows a recording icon on the map. A blue dashed arrow labeled '3' points from the recording icon to the Recording Information panel. The Recording Information panel shows the recording ID '11:58:00\_2024-06-14-155848', a duration of '53m 59s', and a status of 'Approved'. The 'Stop time' field is highlighted with a blue dashed box and contains the text 'Jun 14 2024 12:52:48 (Local) Eastern Daylight Time (GPS -04:00) (Ongoing)'. A warning message is displayed: 'There were warnings detected in H1, H2, H3. View warning icons for more details'. The 'Electric Channels' section is visible at the bottom.



*Please check out the [FAQs](#)*

*<https://phoenixgeophysics.freshdesk.com/>*

*Or email us at: [support@phoenix-geophysics.com](mailto:support@phoenix-geophysics.com)*