# Data Share System Guide

PHOENIX
GEOPHYSICS



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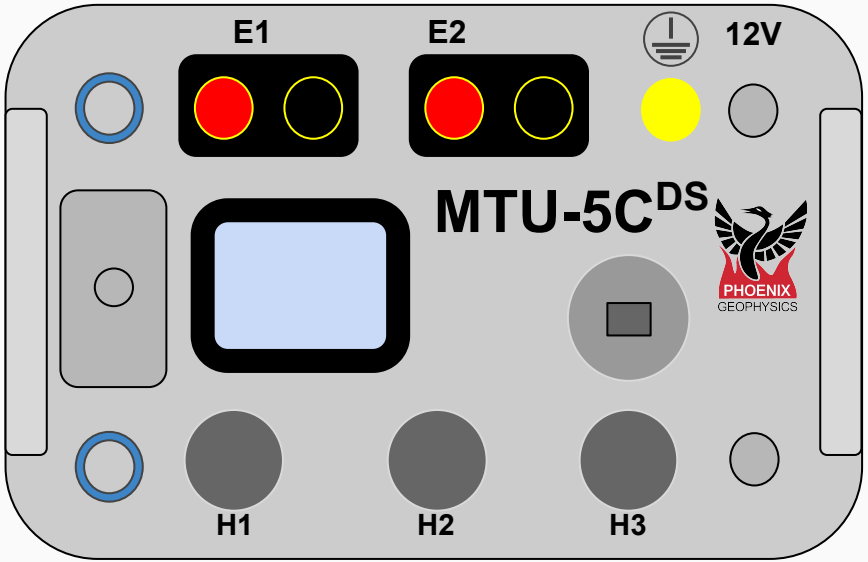
# Data Share Feature - MTU-5C$^{DS}$

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$^{DS}$ 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.



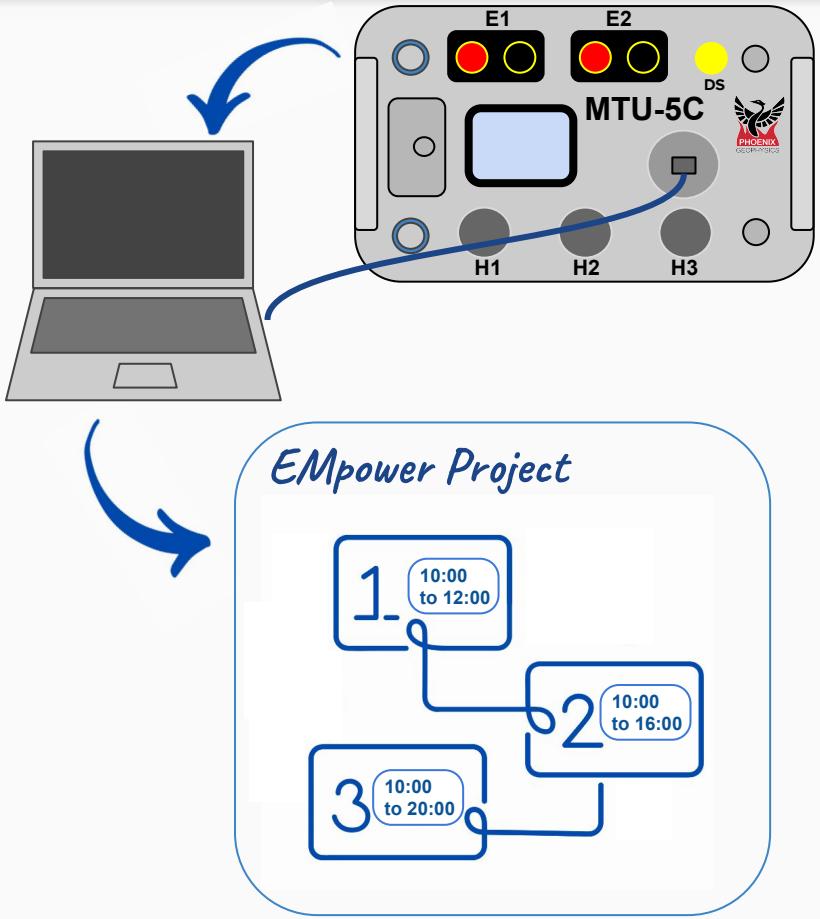

The Data Share feature available for the MTU-5C$^{DS}$ is a network function. Keep in mind that only one network function can be enabled at a time *(i.e. Data Share, Network Upload, Live Monitoring)*.

# Data Sharing Use Cases

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

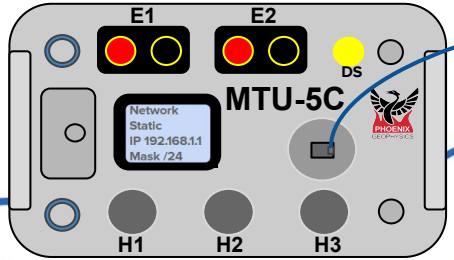
2. Ensure the quality of recorded data without having to stop the ongoing recording

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



# Data Share In 3 Easy Steps

Evaluate data in real time
(no internet access required)




1

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

- Computer
- Phoenix Receiver

2

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

3

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

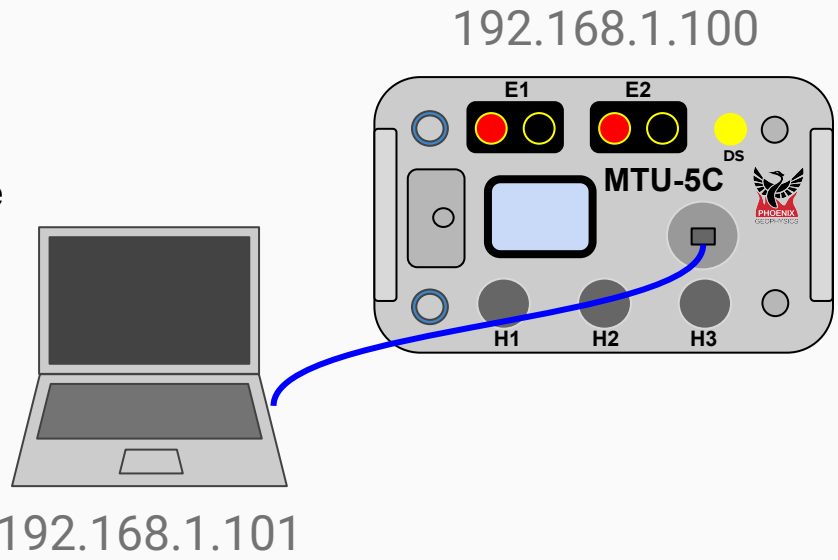
# Define the network

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.

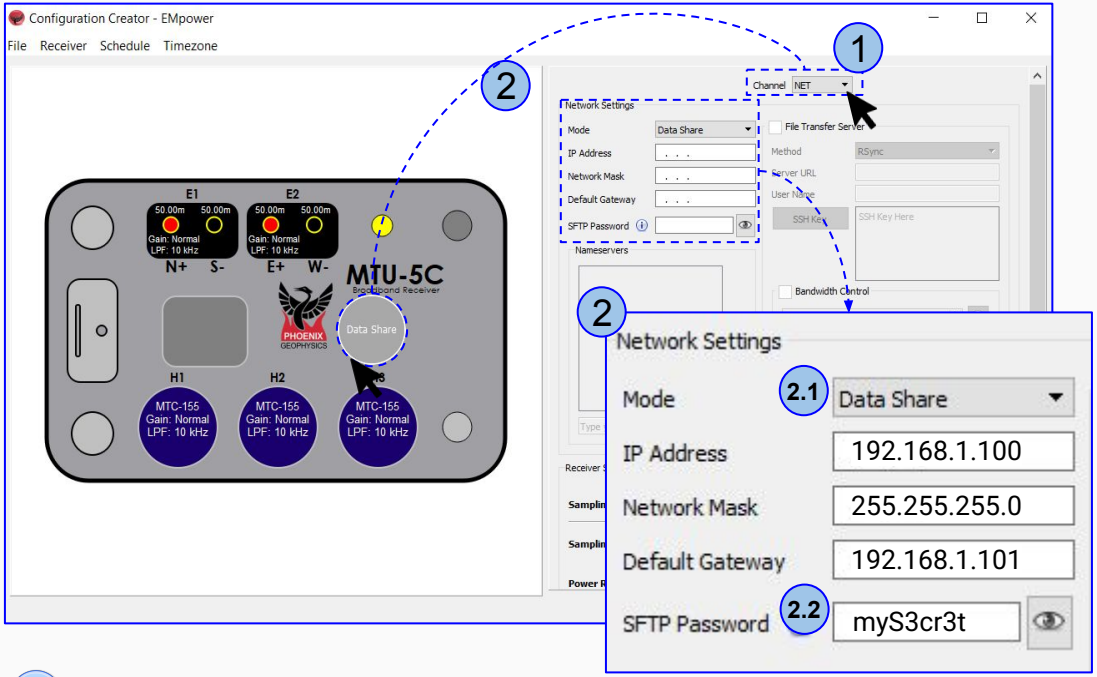
**Windows 11 instructions:**

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:
     - IP **Address**: 192.168.1.100
     - Network **mask**: 255.255.255.0
     - 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)*

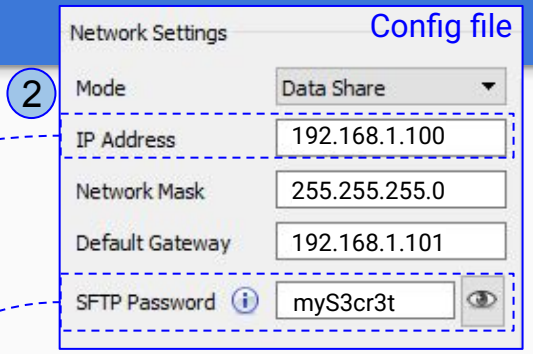


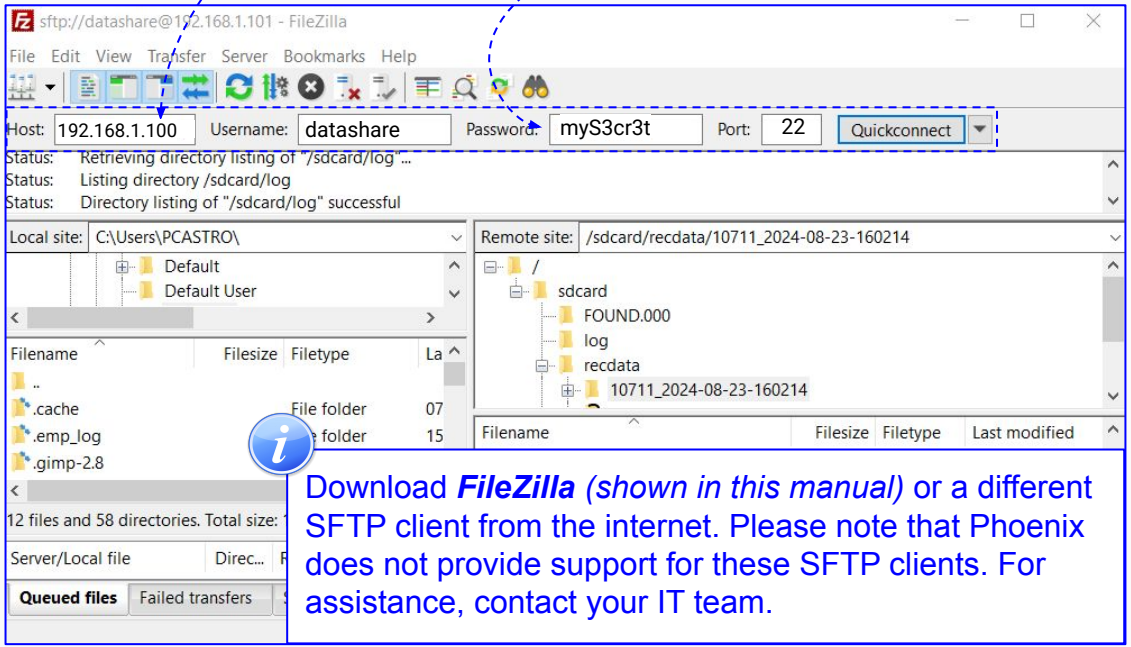

The values shown here only apply for the *Data Share easy-setup* example, consult your IT team if you need to change these values.

# 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.

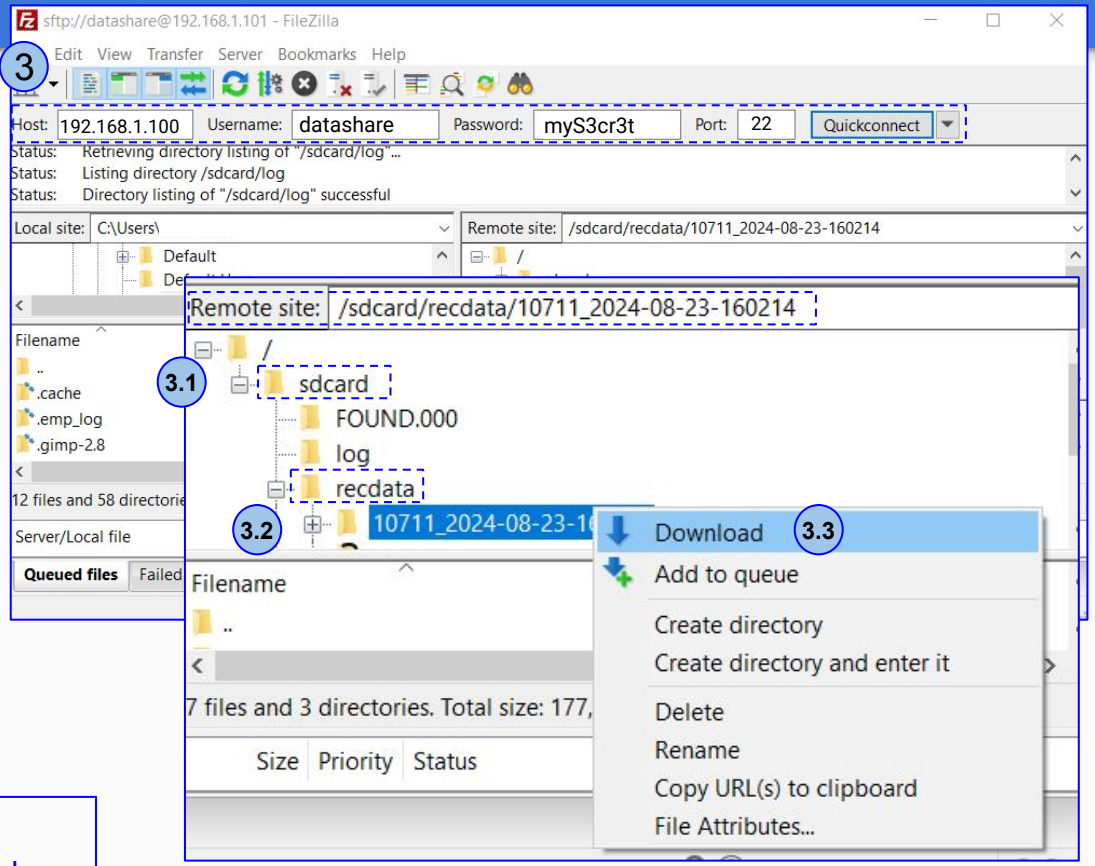

Download ***FileZilla*** *(shown in this manual)* or a different SFTP client from the internet. Please note that Phoenix does not provide support for these SFTP clients. For assistance, contact your IT team.

# 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**

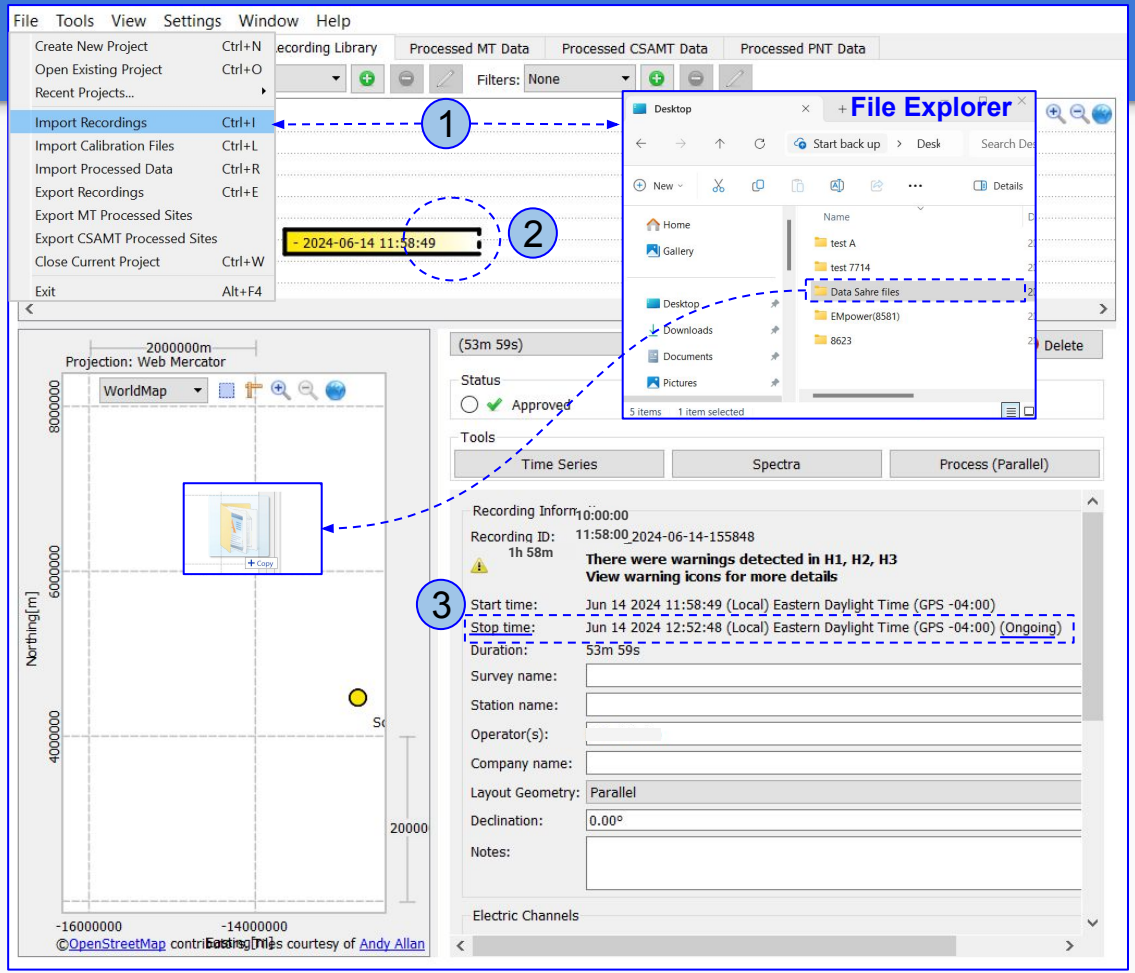
*Note that the data of an ongoing recording can take up to 10 minutes to show up in the card after recording start, depending on the decimation rate selected*




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



# Technical Support Contact

***Please check out the FAQs***
*https://phoenixgeophysics.freshdesk.com/*
***Or email us at:*** *support@phoenix-geophysics.com*