User Manual Data Transfer Zone (DTZ)

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Introduction

The Data Transfer Zone (hereafter called DTZ) is a cloud-based solution for the secure transfer of (large) datasets from point A to B. The DTZ offers personalized accounts with specifically specified rights (for instance upload and/or download permission) and access to project-specific folders. The end user makes use of a pay-per-use model and only pays for the duration of which the data is stored.

There are two options to access the DTZ:

1. via the web client portal (HTTPS) or
2. via an SFTP client.

This manual will describe how to use both options and how to set up 2-factor authentication (hereafter called 2FA).

1. Web client portal

The DTZ web client portal can be accessed via:

https://dtz.erasmusmc.nl:8443/

The Biomics DTZ domain, can be accessed via:

https://dtz.erasmusmc.nl:8444/

After the DTZ account is created, you will receive an e-mail with your temporary password, which you will be asked to change. Your username is your e-mail address. In addition, you are required to set up 2-factor authentication (2FA), also see Chapter 2: 2-factor authentication.

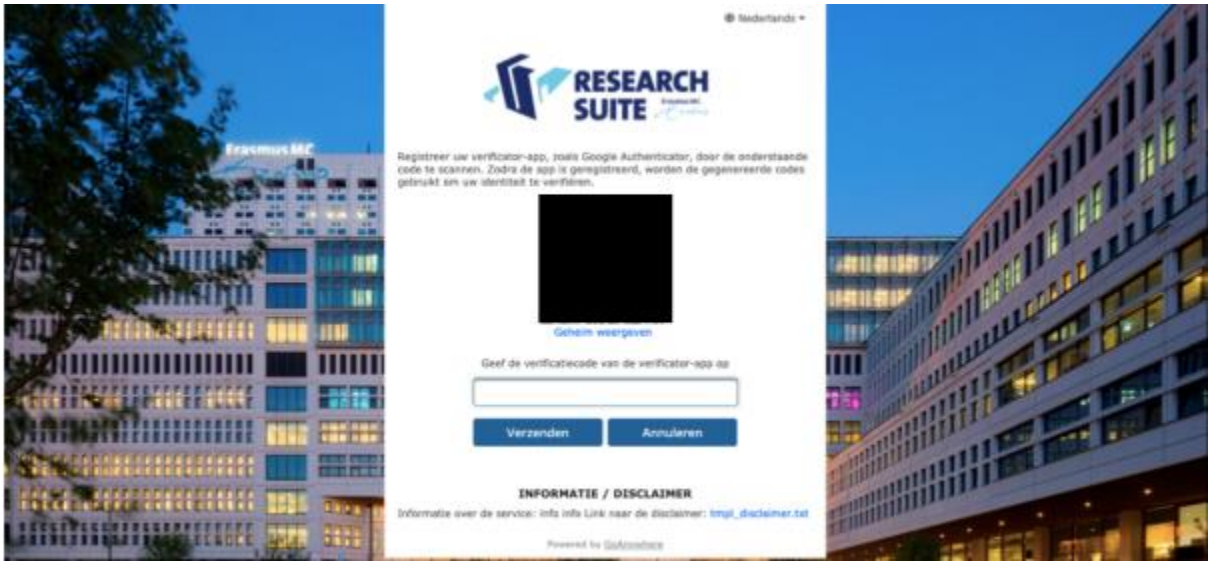
1.1 Login via web-client

After successfully logging in you will find the project folder(s) which have been generated for you or which you have been added to. The project folder will always adhere to the naming convention: costcenter_acronym. Based on the given permissions, you can now upload or download data from the project folder(s). Data uploads can be done easily via drag & drop or using the upload button.

2. 2-factor authentication (2FA)

After logging in to the web portal and changing your password, you are required to set up 2- factor authentication (2FA), via the QR code. We recommend using the **Microsoft Authenticator app**. The Microsoft Authenticator app can be downloaded for free in the application store on your smartphone.

1. Open the app and click on the **+ sign** in the top right corner and you will be asked to add an account.
2. Select **+ Other account** (bottom option).
3. After selecting **Other account**, the QR scanner on your smartphone will be activated and you can now scan the QR code displayed on the web portal.
4. his creates a DTZ account in the Microsoft Authenticator app. A numerical code will be displayed under the account and you can use this code to log in to the web portal after filling in your username and password.
5. Every time you log in to the web portal, you will need to fill in your username, password and a code from the authenticator app. The code changes every 30 seconds.



3. SFTP usage

In addition to the web portal, the DTZ can also be accessed via SFTP* to download or upload your files (depending on the permissions on your account).

** The standard port for SFTP connection differs compared to the usual port. For the DTZ the port is 8022 (and for Biomics 8023) instead of 22.*

3.1 SFTP access via FileZilla (Windows and MacOS)

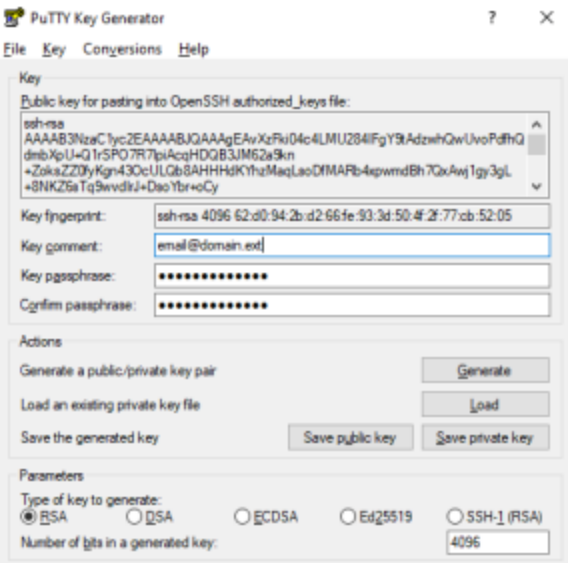
Both Windows and MacOS have several SFTP-clients to choose from. SOM-PCs within Erasmus MC (including MijnWerkplek) have FileZilla readily installed. MacOS can also make use of FileZilla (https://filezilla-project.org/download.php?platform=osx) or its alternative Cyberduck (https://cyberduck.io/download/). Both are free SFTP clients.

Similar to the web portal, accessing the DTZ via SFTP will require 2-factor authentication. Accessing the DTZ from an SFTP client will make use of a username/password and key combination. The admin(s) of the DTZ will set up your account as requested, however users are required to generate an SSH keypair for 2-factor authentication.

- For this, users need to generate a keypair. As the name implies there are two SSH keys, more commonly referred to as the **public** and **private** key. Generating these keys can be done via several ways. The easiest way is using PuTTYgen. See the guide below.
- Users can send the **public** key (key file with the extension .pub) to research.it@erasmusmc.nl. This key needs to be associated with the user account and will be done by the admin(s).

3.1.2 Generating SSH keys with PuTTYgen

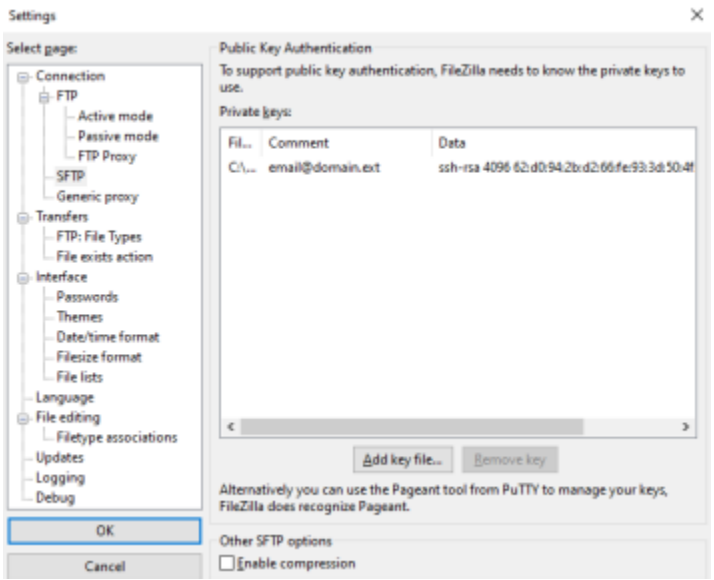
- Download the appropriate version of PuTTYgen for your operating system: https://www.puttygen.com/.
- Open PuTTYgen and fill in the parameters:
    - **Type of key to generate**: RSA
    - **Numbers of bits in a generated key**: 4096
- Click on **Generate**.
- The following screen will open. Fill in the parameters:
    - **Key comment**: e-mail address, this will make it easier for the admins to track which key belongs to which account.
    - **Key passphrase**: fill in a password for your private key, make sure you remember this, because you will need it later on. It is recommended to have a passphrase in case someone else will gain access to your private key.
    - Confirm your passphrase.



- Save both keys. Recommended files names: **username.pub** for private key, **username.ppk** for private key. Substitute **username** for your own DTZ username.
- Send the **public** key (username.pub file) to research.it@erasmusmc.nl. The admins will associate this key with the specific user account. The admins will confirm once this is done.

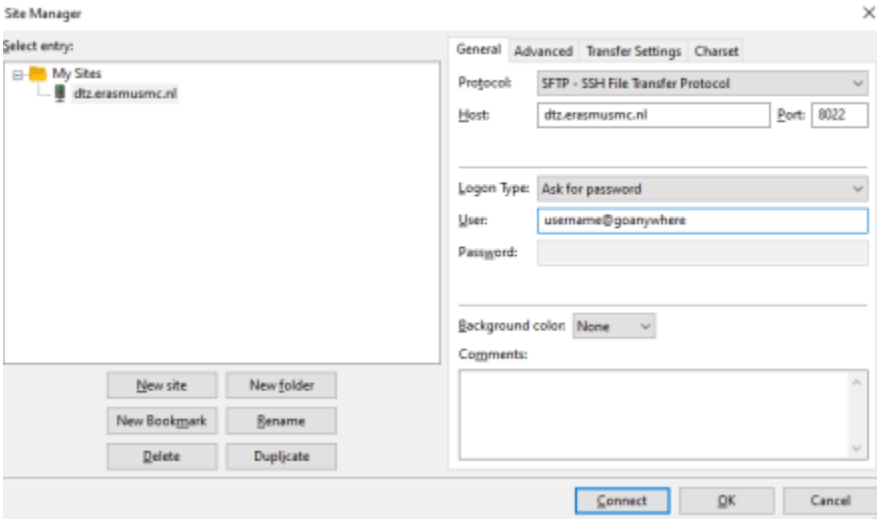
3.1.3 Example: SFTP with FileZilla

- Open FileZilla, click on **Edit** (on Windows) or **FileZilla** (on MacOS) and then **Settings**.
- Navigate to **SFTP** in the left menu and add your **private** key file. If it is not the correct format, FileZilla will convert it for you (.ppk extension). PuTTygen will automatically generate keys with a .ppk extension.
- Click on **OK**. Make sure you do this, otherwise they key won't be added

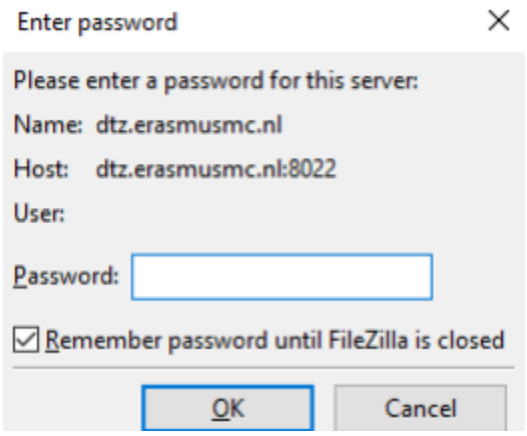


- Press on the icon on the top left to create a new connection. This will open the **Site Manager**. Click on **New site**.

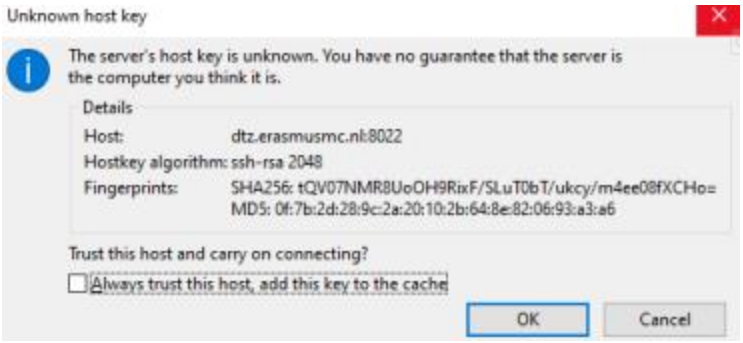
- Fill in the details in the **General** tab:
    - **Protocol**: SFTP – SSH File Transfer Protocol
    - **Host**: dtz.erasmusmc.nl
    - **Port**: 8022 or 8023 depending on your domain
    - **Log in type**: Ask for password
    - **Username**: Fill in your username (e-mail address)
    - You can't fill in your password yet, click on **Connect**



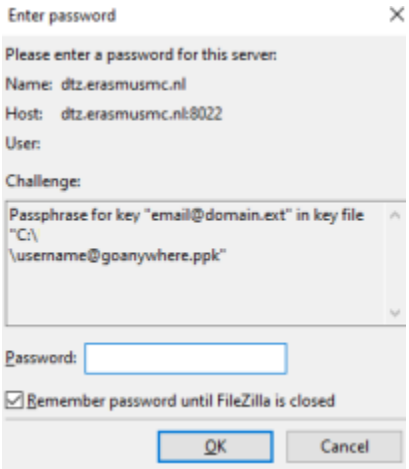
- Next, a pop-up will appear and ask for your password, fill in your password



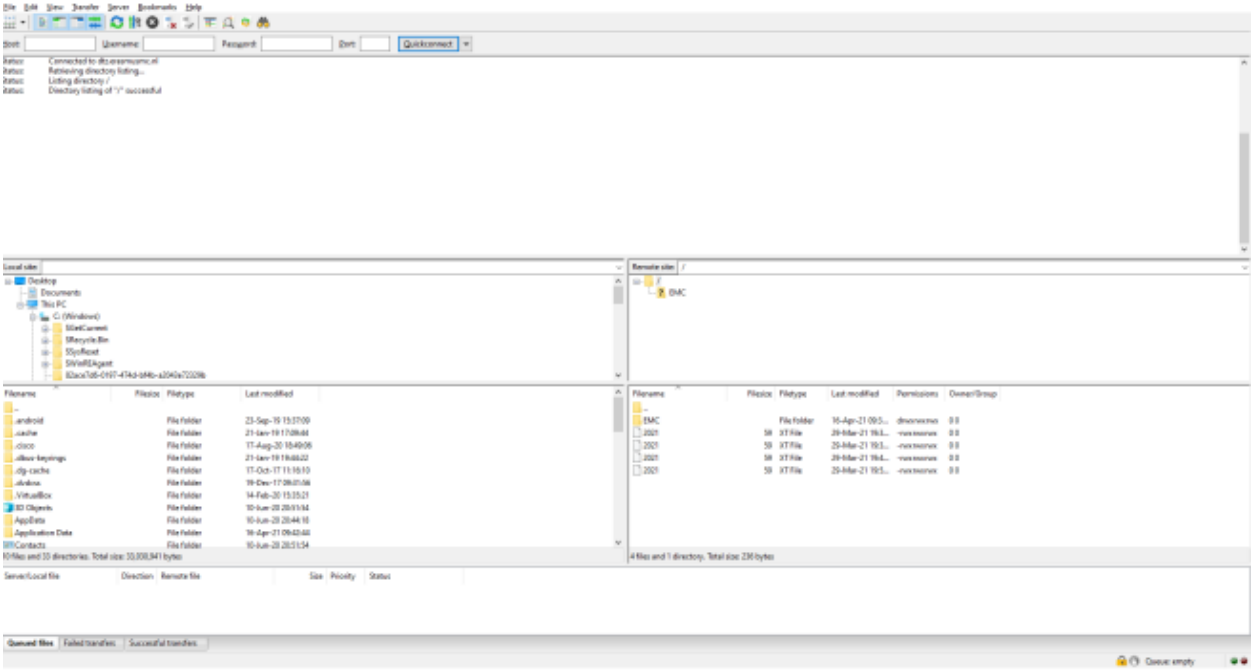
- The next pop-up states that the connection is unknown. You can click on **OK** here.



- The next pop-up will ask for the passphrase of your private key. Enter your passphrase.



- You will now be connected to the DTZ SFTP server and you will be ready for the transfer.



3.2 SFTP access Linux

It is also possible to download or upload data from your Linux environment, for example to get data on a server or virtual machine.

The following command can be used: sftp. With -P you can specify a particular port.

```
$ sftp -P 8022 user@email.ext@dtz.erasmusmc.nl
```

After this, you will need to log in with your password and private key.

3.2.1 Upload

Uploading data via the command line interface can be performed by using the command ‘put’/
Example:

```
sftp> put test
Uploading test to /test/test
test                                          100%    0     0.0KB/s   00:00
sftp>
```

After typing in the command ‘put’ you can use the tab key to view local data.

3.2.2 Download

Downloading data can be performed by using the command ‘get’.
Example:

```
sftp> get test
Fetching /test/test to test
```

After typing in the command ‘get’ you can use the tab key to view data on the server.

3.2.3 Other

It is possible to get an overview of the functions within the sftp program. For this, you can use the command '?' followed by enter.

This will give the following information:

```
sftp> ?
Available commands:
bye                                Quit sftp
cd path                            Change remote directory to 'path'
chgrp [-h] grp path                Change group of file 'path' to 'grp'
chmod [-h] mode path               Change permissions of file 'path' to 'mode'
chown [-h] own path                Change owner of file 'path' to 'own'
df [-hi] [path]                    Display statistics for current directory or
                                   filesystem containing 'path'
exit                               Quit sftp
get [-afPpRr] remote [local]       Download file
reget [-fPpRr] remote [local]      Resume download file
reput [-fPpRr] [local] remote      Resume upload file
help                               Display this help text
lcd path                           Change local directory to 'path'
lls [ls-options [path]]            Display local directory listing
lmkdir path                        Create local directory
ln [-s] oldpath newpath            Link remote file (-s for symlink)
lpwd                               Print local working directory
ls [-lafhlnrSt] [path]             Display remote directory listing
lumask umask                       Set local umask to 'umask'
mkdir path                         Create remote directory
progress                           Toggle display of progress meter
put [-afPpRr] local [remote]       Upload file
pwd                                Display remote working directory
quit                               Quit sftp
rename oldpath newpath             Rename remote file
rm path                            Delete remote file
rmdir path                         Remove remote directory
symlink oldpath newpath            Symlink remote file
version                            Show SFTP version
!command                           Execute 'command' in local shell
!                                  Escape to local shell
?                                  Synonym for help
sftp>
```

The command 'ls' will show the server folder.
Leaving the SFTP tool can be done with the command 'quit'.

Not every function will be available to you, as some require specific permissions.