

MONA user guide

MONA (Microdata Online Access) is Statistics Sweden's platform for access to microdata. In MONA, users can process data online without the microdata ever leaving Statistics Sweden.

The processing is done via what is known as a **remote desktop**. When you are connected to MONA's remote desktop, mouse clicks and button presses are sent to servers at Statistics Sweden, which then do all the processing and send back the image with the programs you have running.

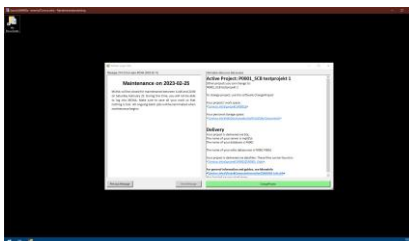
The user experience is similar to working with your own Windows computer, but all folders, files and software are located in MONA. This allows for high availability while protecting the data from unauthorised access. It also means that you can do large-scale processing without having your own powerful servers.

Tabellbyggaren

If you only have access to Tabellbyggaren, you do not need to connect to a remote desktop.

In addition to the remote desktop, there is also **MONAWeb**, where you can upload and download files from MONA, search metadata, etc. The terms of use for MONA are also available there.

For more information, see scb.se/mona-en.



Contents

1.	Rules and regulation	3
1.1.	Receiving organisation is responsible.....	3
1.2.	Data in MONA is protected by secrecy.....	4
1.3.	Terms of use	5
2.	Login	6
2.1.	Approved country	6
2.2.	Logging in with BankID.....	6
2.3.	Logging in with one-time password (OTP)	10
3.	The portal.....	13
4.	Connecting to the remote desktop	13
4.2.	Using multiple monitors (from Windows computer)	15
4.3.	Connecting to the remote desktop from a Mac computer	16
4.4.	Special characters on a Mac computer.....	18
5.	Use.....	19
5.1.	Information after login	19
5.2.	Finding guides in MONA.....	19
5.3.	Folder system	20
5.4.	Uploading files to MONA	20
5.5.	Downloading files from MONA	21
6.	Logging out	21
6.1.	Your remote desktop session	21
6.2.	Closing your remote desktop session.....	22
6.3.	Logging out of the portal	22
6.4.	Logging out of the portal due to inactivity	22
7.	Ending your use of MONA.....	23

1. Rules and regulation

1.1. Receiving organisation is responsible

When Statistics Sweden has released microdata, the recipient will then be responsible for the data, irrespective of whether the data was released in MONA or in some other way. “Recipient” means the organisation to which the data was released. Data is released to separate storage areas, known as MONA projects. The recipient is responsible for these MONA projects and the data they contain.

The recipient may supplement Statistics Sweden’s delivery of data with other microdata or information needed for the purpose for which Statistics Sweden made the delivery. This could be the user’s own information, or information from other authorities, programming code or statistics.

Under the General Data Protection Regulation (GDPR), the recipient is the personal data controller for the personal data that they process, while Statistics Sweden is a personal data processor through its provision of storage areas in MONA. A personal data processing agreement (PDP agreement) regarding the personal data in MONA must be signed between Statistics Sweden and the recipient.

1.2. Data in MONA is protected by secrecy

The microdata disclosed and made available by Statistics Sweden in MONA is always protected by secrecy, which means that the recipient is bound by a duty of confidentiality.

[The General Data Protection Regulation \(GDPR\)](#) applies to all processing of personal data. Disclosed microdata relating to individuals is usually personal data, even if information directly identifying the person, such as personal identity number and name, is not included.

Special rules apply if you are going to use personal data that is sensitive under the GDPR (e.g. data on health and ethnicity). If such data is used in a research project, the Act on Ethical Review of Research Involving Humans ([lagen \(2003:460\) om etikprövning av forskning som avser människor](#)) stipulates that the project must have authorisation from the Ethical Review Authority. Violating the law is a criminal offence, and anyone who does so may be subject to fines or imprisonment.

1.3. Terms of use

The purpose of the terms of use is essentially to enhance the protection of data in MONA. A violation of these terms could also constitute unauthorised processing according to the General Data Protection Regulation (GDPR) and, when this occurs, a personal data incident shall be reported to the Swedish Authority for Privacy Protection. Under the GDPR, it is for example not permitted to provide unauthorised access to personal data, which could be the case if a user discloses login details to others.

Use of MONA is permitted within the EU, EEA, and third countries approved for data transfer by the European Commission. The terms of use prohibit the use of MONA in countries not approved by the European Commission. For this reason, using MONA from a Swedish embassy or consulate in a third country not approved for data transfer, or using a network connection (VPN) to route traffic to MONA via a third country not approved for data transfer, is prohibited.

The list of third countries approved by the European Commission for data transfer is available here:

[Adequacy decisions | European Commission \(europa.eu\)](https://european-council.europa.eu/media/e300107/image.aspx?type=Image)

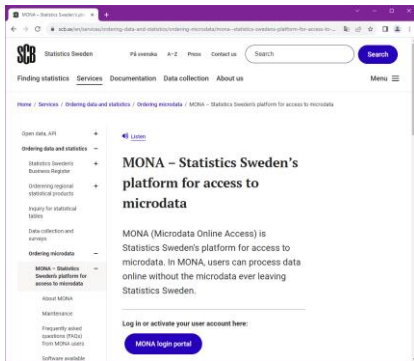
It is not permitted to use MONA from the US or Canada.

If the responsible organisation is a government agency, the agency is responsible for the data stored on the shared storage space and on the personal storage space (My Documents). The agency decides what to do with data stored on the shared storage space and on the personal storage space when use of MONA has stopped.

2. Login

MONA users can choose between two different login methods:

1. [BankID](#)
2. [One-time password](#)



New MONA users will receive a welcome email with information on the username they have been assigned and instructions on how to link their account to one of the login methods. Only one of the methods may be used, so the user must pick one.

It is not possible to link an account to both methods at the same time. If you change the method, the possibility of logging in with the other method is lost.

More information and a link to the login page is available at scb.se/mona-en

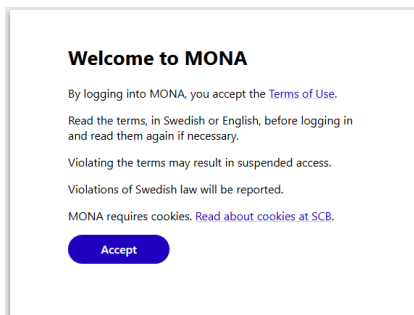
2.1. Approved country

MONA may only be used in an EU or EEA country, or in a third country approved for transfer by the European Commission.

The login page blocks connections from countries that are not approved.

Use of a VPN connection to bypass this restriction is not allowed.

If you are in an approved country, click “Accept” to proceed with the login.



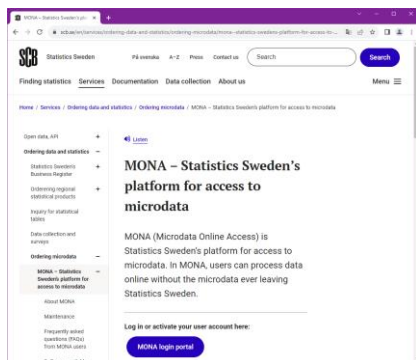
2.2. Logging in with BankID

Logging in with BankID does not require a separate password or other authentication. The following are the only things needed:

1. Username
2. BankID

Follow the steps below to log in with BankID.





2.2.1. Logging in with BankID – Open the login page

Open a browser and go to scb.se/mona-en

To access the login page, click on

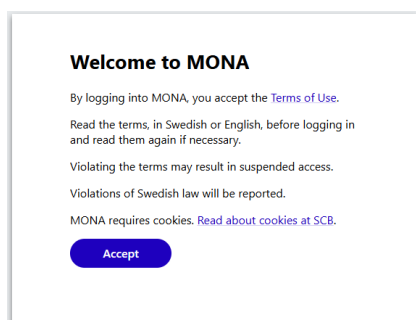
MONA login portal

2.2.2. Logging in with BankID – Approved country

Click on

Accept

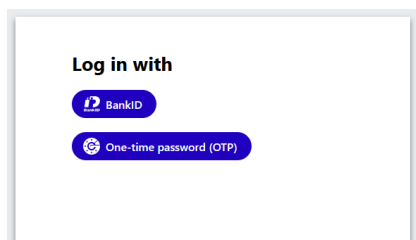
When you log in, you approve the [terms of use](#) for MONA.



2.2.3. Logging in with BankID – Choose BankID

Click on

BankID

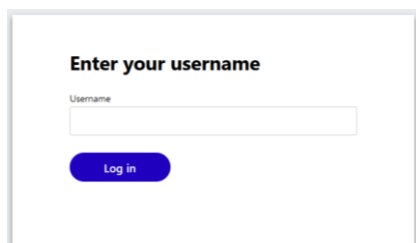


2.2.4. Logging in with BankID – Enter username

Enter the username you received in the welcome email.

Click on

Log in



2.2.5. Logging in with BankID – choose BankID or Mobile BankID

Statistics Sweden has an agreement with twoday AB for BankID authentication. The address in the browser therefore refers to <https://idp.ciceron.cloud/> during BankID authentication.

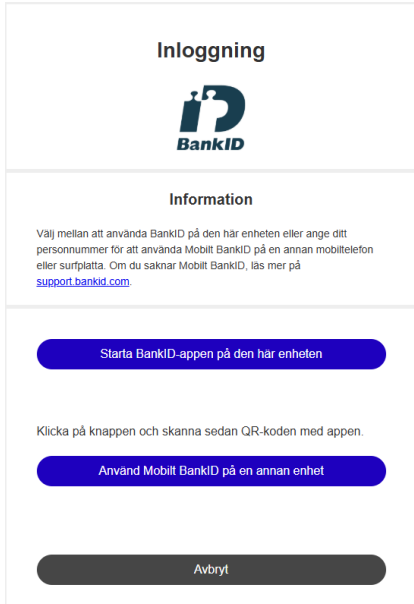
Choose between:

BankID

if you have the BankID program on your computer and authenticate with a connected OTP (one-time password) token.

Mobilt BankID

if you have the BankID app on your smartphone and authenticate there.



The screenshot shows the BankID login interface. At the top, it says 'Inloggning' with the BankID logo. Below that is an 'Information' section with text about choosing between the desktop app and the mobile app. There are three buttons: 'Starta BankID-appen på den här enheten' (blue), 'Använd Mobilt BankID på en annan enhet' (blue), and 'Avbryt' (grey).

Inloggning

BankID

Information

Välj mellan att använda BankID på den här enheten eller ange ditt personnummer för att använda Mobilt BankID på en annan mobiltelefon eller surfplatta. Om du saknar Mobilt BankID, läs mer på support.bankid.com

Starta BankID-appen på den här enheten

Klicka på knappen och skanna sedan QR-koden med appen.

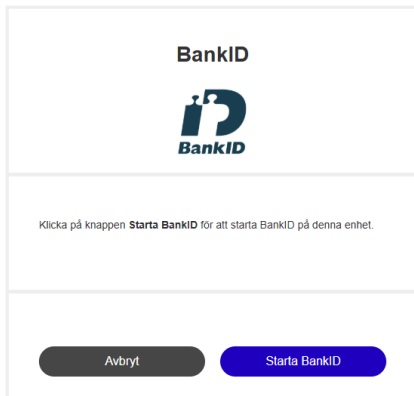
Använd Mobilt BankID på en annan enhet

Avbryt

2.2.6. Logging in with BankID – BankID with OTP token

If you have chosen **BankID** with OTP token, the BankID program must be installed on the computer you are connecting from.

Start the BankID program and authenticate.



The screenshot shows the BankID start screen. It features the BankID logo and a message instructing the user to click the 'Starta BankID' button. At the bottom, there are two buttons: 'Avbryt' (grey) and 'Starta BankID' (blue).

BankID

Klicka på knappen **Starta BankID** för att starta BankID på denna enhet.

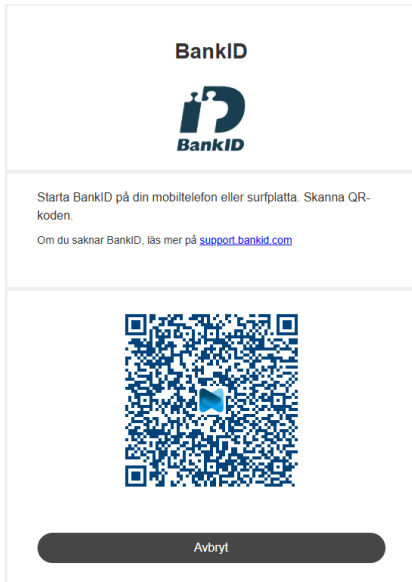
Avbryt Starta BankID

2.2.7. Logging in with BankID – Mobile BankID

If you have chosen **Mobile BankID**, you scan the QR code.

Authenticate in the BankID app on your phone.

The app will show that you are authenticating your identity to **Statistiska centralbyrån** (Statistics Sweden).

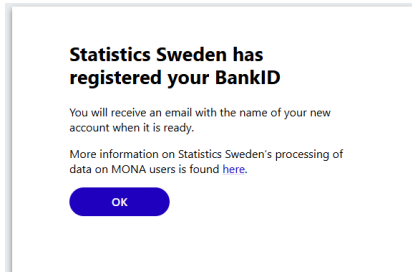


2.2.8. Logging in with BankID – Registration

If your MONA account is not linked to your BankID, the login attempt will be registered.

If you entered the correct username, you will receive an email from MONA Support after a few days when your account is linked to your BankID.

Once your account has been linked to your BankID, you can log in in the same way, but you will be sent to the [portal](#) instead.



2.3. Logging in with one-time password (OTP)

This login option requires:

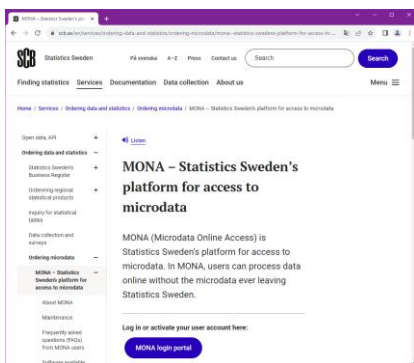
1. Username
2. Password
3. One-time password (OTP) from an app

MONA Support sends a welcome email to new users. This email contains your username and instructions on how to link your account to OTP login.

MONA Support only sends passwords by registered mail. You must change your password the first time you log in.

Information on how to download and configure the app is available via the welcome email.

The one-time password from the app is based on a standardised method for time-based one-time passwords (TOTP). There are several apps that support this standard, but Statistics Sweden recommends the Google Authenticator app.



2.3.1. Logging in with OTP – Open the login page

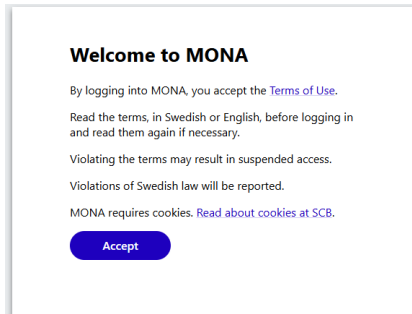
Open a browser and go to scb.se/mona-en

To access the login page, click on

MONA login portal

2.3.2. Logging in with OTP – Approved country

Click on 



Welcome to MONA

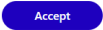
By logging into MONA, you accept the [Terms of Use](#).

Read the terms, in Swedish or English, before logging in and read them again if necessary.

Violating the terms may result in suspended access.

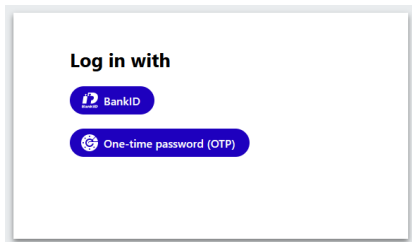
Violations of Swedish law will be reported.

MONA requires cookies. [Read about cookies at SCB](#).



2.3.3. Logging in with OTP– Choose One-time password (OTP)

Click on 



Log in with

 BankID

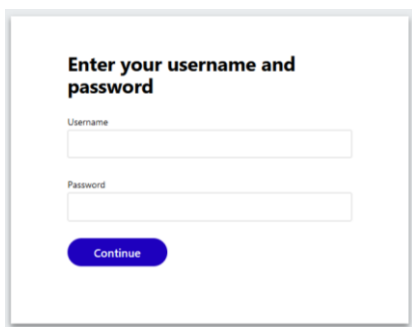
 One-time password (OTP)

2.3.4. Logging in with OTP – Enter username and password

Enter the username you received in the welcome email and your password.

The first time you log in, you enter the password you received by registered mail. You will also have to change it to a new password of your choice.

Click on 



Enter your username and password

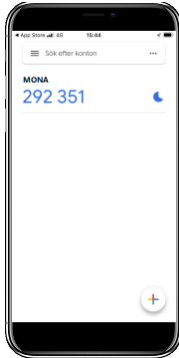
Username

Password



2.3.5. Logging in with OTP – Enter one-time password

Start the app on your smartphone.



Enter the six-digit one-time password (without spaces) from the app in the OTP field.

Click on **Log in**

The one-time password is valid for 30 seconds. The app shows how much time is left with a timer to the right of the password. When the time expires, a new password is generated.

Note: For login to work, the clock on your phone must be synchronised.

A screenshot of a web form titled 'Enter your one-time password (OTP) from your app'. It features a text input field labeled 'OTP' and a blue 'Log in' button at the bottom.

2.3.6. Logging in with OTP – Choose a new password

If you have not changed your password for a long time or if you are logging in for the first time, you must change to a new password of your choice.

A screenshot of a web form titled 'Change password'. It includes a message: 'The domain password has expired. Please change the password.' Below this are two text input fields labeled 'New Password' and 'Confirm Password', followed by a blue 'Log in' button.

The password in MONA must contain at least 14 characters, and must contain characters from at least three of the following categories:

- Lowercase letters (a-z)
- Uppercase letters (A-Z)
- Numbers (0-9)
- Special characters (non-alphanumeric):
~ ! @ # \$ % ^ & * _ - + = () { } [] : ; " ' < > , . ?

Enter the new password in both boxes.

Click on **Log in**

3. The portal

After logging in, you will be taken to a portal with two icons:

1. **MONA web**

A web page where you can accept the terms of use, upload and download files from MONA, review metadata, request that your account be closed, etc.

2. **Remote Desktop (RDP-file)**

Connection to remote desktop in MONA with access to data, software, etc.

3. **Tabellbyggaren**

A tool for accessing special databases without accessing the remote desktop.



4. Connecting to the remote desktop

Once you have logged in to the portal, follow the steps below to connect to the remote desktop.

A Remote Desktop program is required to be able to connect to the remote desktop. If you are connecting from a Windows computer, the program **Remote Desktop Connection** is pre-installed.

If you are connecting from a Mac computer, the **Windows App** application is available from the Apple AppStore.

It is also possible to connect from a Google Chromebook and Linux computer, but this is not described in this guide.





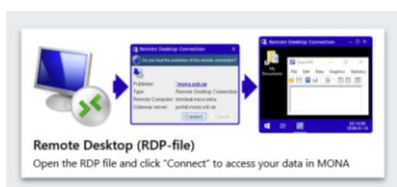
4.1. Connecting to the remote desktop from a Windows computer

Follow the steps below to connect to the MONA remote desktop from a Windows computer.

4.1.1. Click on the link (Connect from a Windows computer)

Click on “Remote Desktop (RDP-file)”

The link leads to an RDP file with a name like “launchde3ad6b.rdp”



4.1.2. Open the RDP file (Connect from a Windows computer)

Open the file in the “Remote Desktop Connection” program.

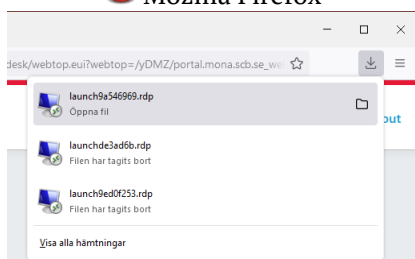
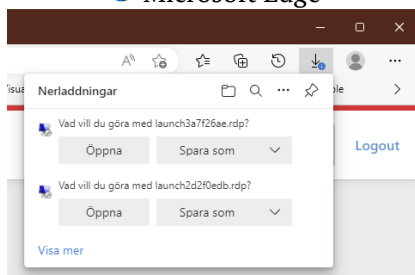
The program is part of Windows and should be the default program for opening the file.

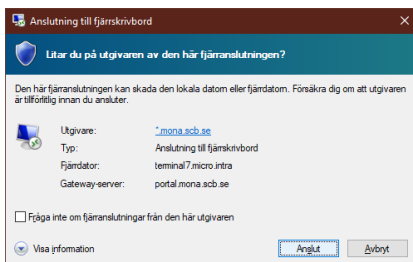
It is possible to open the file directly from the browser. How you do this depends on which browser you are using.

Each RDP file is valid for one connection, so always click on “Remote Desktop (RDP-file)” and open the latest file to connect.

In **Microsoft Edge** and **Mozilla Firefox**, downloaded files appear in the top right corner. The most recent file is at the top of the list.

In **Google Chrome**, downloaded files appear in a list at the bottom. The most recent file is on the left.





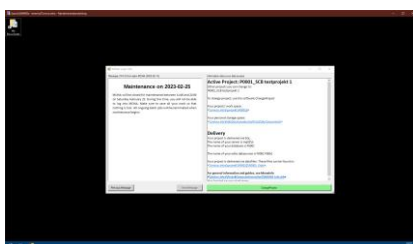
4.1.3. Click on Connect (Connect from a Windows computer)

When you open the file you will be asked if you trust the publisher [*.mona.scb.se](http://mona.scb.se)

If you do not want to see the question again, you can tick the box:

☐ Don't ask me again about remote connections from this publisher

Click on **Connect**



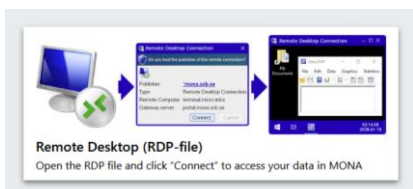
4.1.4. The remote desktop opens (Connect from a Windows computer)

The remote desktop opens in full screen mode.

If you have multiple monitors, the remote desktop opens on the primary monitor.

4.2. Using multiple monitors (from Windows computer)

4.2.1. Click on the link (Multiple monitors from a Windows computer)



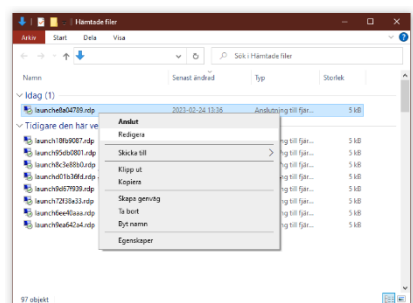
To use multiple monitors simultaneously, you need to edit the RDP file before opening it.

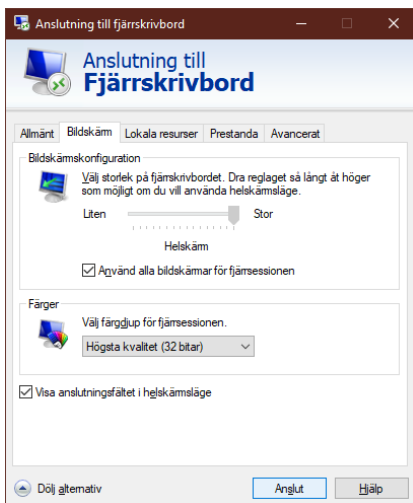
Click on “Remote Desktop (RDP-file)” and save the RDP file to a folder where you can find it.

4.2.2. Edit the RDP file (Multiple monitors from a Windows computer)

Find the RDP file in Windows Explorer.

Right-click on the file and select “Edit”.





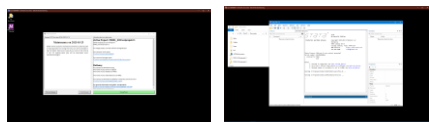
4.2.3. Change the settings (Multiple monitors from a Windows computer)

Go to the tab **Display**

Tick the box:

☐ Use all my monitors for the remote session

Click on **Connect**



4.2.4. The remote desktop opens (Multiple monitors from a Windows computer)

The remote desktop opens on all monitors.



4.3. Connecting to the remote desktop from a Mac computer

Follow the steps below to connect to the MONA remote desktop from a Mac computer.



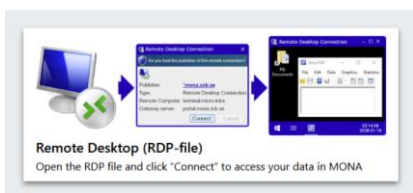
4.3.1. Install the app (Connect from a Mac computer)

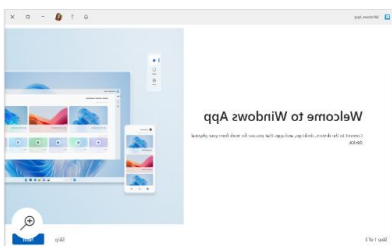
To open the MONA remote desktop from a Mac computer, the **Windows App (Microsoft Remote Desktop)** app must be installed. The app is available from the Mac App Store:

<https://apps.apple.com/se/app/windows-app/id1295203466?mt=12>

4.3.2. Click on the link (Connect from a Mac computer)

Click on “Remote Desktop (RDP-file)”





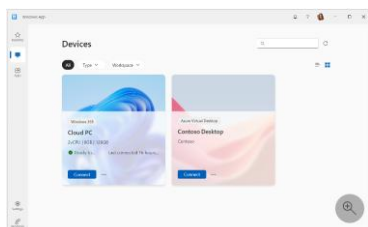
4.3.3. Open the link in the app (Connect from a Mac computer)

If the **Windows App** is installed, a pop-up box will ask if you want to open the link.

If you do not want to see the question again, you can tick the box:

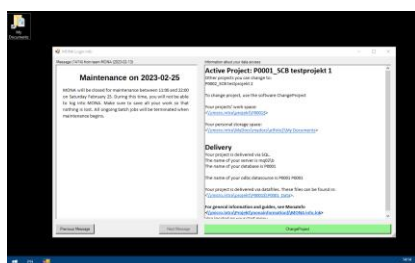
☐ Always allow <https://portal.mona.scb.se> to open RDP links

Click on **Open link**



4.3.4. Connect to the remote desktop (Connect from a Mac computer)

Wait while **Windows App** opens and connects.



4.3.5. The remote desktop opens (Connect from a Mac computer)

The remote desktop opens in full screen mode.

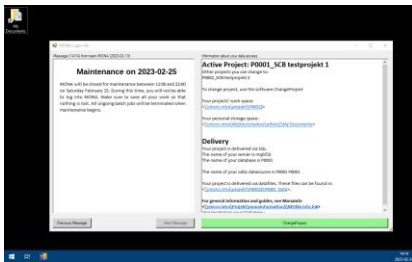
4.4. Special characters on a Mac computer

There are some differences between Windows and Mac keyboards. The table below provides a general guide to differences between which keys generate some of the special characters.

Character	Key combination (Swedish layout)			Key combination (English layout)	
\$	ctrl	alt	4	⇧ shift	6
	right alt	> <		⇧ shift	 \
\	ctrl	alt	+	 \	
{	ctrl	alt	7	⇧ shift	{ }
}	ctrl	alt	0	{ }	
[	ctrl	alt	8	⇧ shift	[]
]	ctrl	alt	9	[]	

5. Use

5.1. Information after login

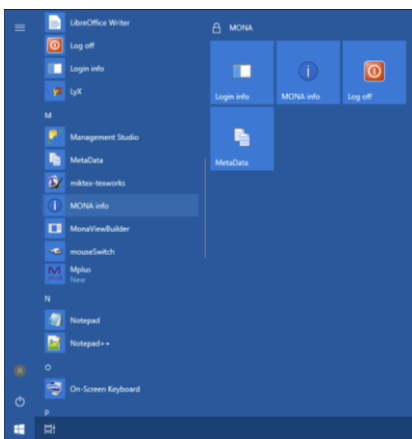


When you log in to the MONA Remote Desktop, an information box appears. This box contains information about upcoming maintenance work and other items of interest to MONA users.

It also contains information about the project you have access to and a link to the storage space for the project.

To bring up the desktop in MONA, you need to minimise or close the information box. This is done at the top right of the program window.

5.2. MONA info - guides in MONA



The start menu of MONA contains a shortcut to “MONA info”, where you can find guides for using MONA.

In the start menu, you will find the software you can use. Please note that the content varies depending on your order and your access rights. A complete list of software can be found at scb.se/mona. Contact MONA Support if you are missing any software in your start menu.

For longer and more resource-intensive processing, please use our batch environment. A guide for the Batchclient program can be found in “MONA info”. The guide states which software can be used in the batch environment.

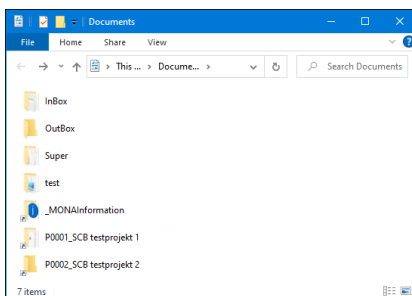
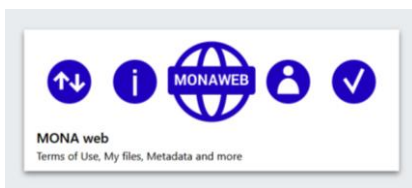
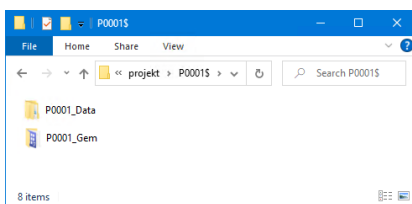
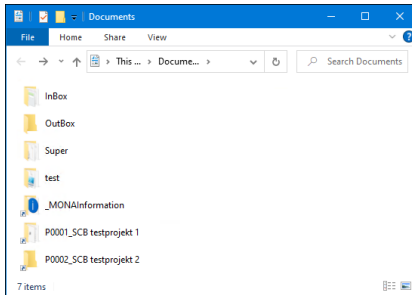
5.3. Folder system

The My Documents folder is your personal storage space. Here you will find shortcuts to your projects and files you upload are found in the “InBox” folder. Please note that “My Documents” is limited to 250 megabytes per user, and you are not allowed to save microdata here. So, be sure to save all data in the project folder.

The shortcut **ProjektID_Namn** leads to the project’s storage space, which contains the following folders:

ProjektID_Data: Here you will find data files, if the project is delivered in files (i.e. not as views in SQL).

ProjektID_Gem: This is where you save the files you produce. It is a folder that all users in your project can access. You can also create your own folder structures here. Remember to regularly delete files that do not need to be saved.

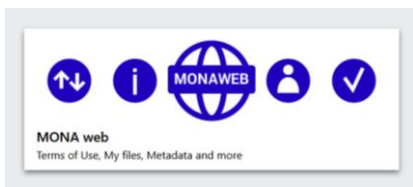
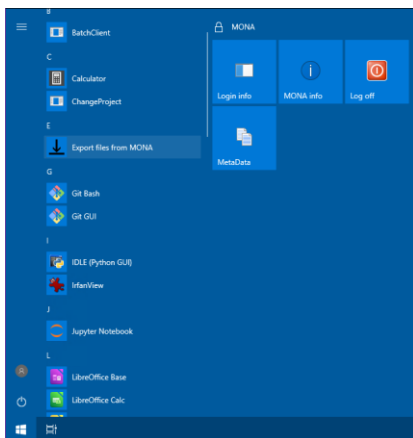


5.4. Uploading files to MONA

If you need to use files located outside of MONA for processing related to the project, you can upload them via the “My Files” page. “My Files” is available via the “MONA web” link in the portal.

Information on which files you can upload can be found on the “My Files” page.

Uploaded files are reviewed and then placed in the “InBox” folder in your “My Documents”. This may take a few minutes.



5.5. Downloading files from MONA

To download results, use the application “Export files from MONA” in your Start menu. Exported files are available for download via the “MONA web” link in the portal.

Downloading of microdata is never allowed.

6. Logging out

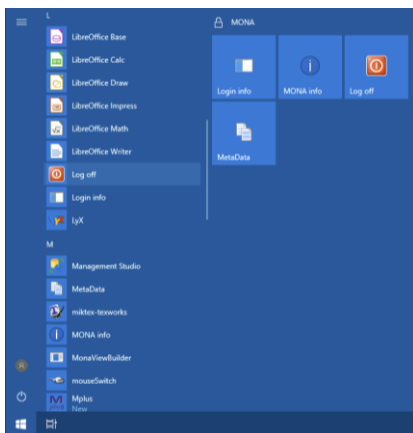
6.1. Your remote desktop session

When you open the remote desktop, your session starts. If you are inactive for more than 30 minutes, the connection is closed, but the session remains open. The same applies if you close the remote desktop without logging out.

As long as your session is running, you can resume your work. The next time you log in, the programs you had running will still be there and any processing you had started will have continued while you were disconnected.

You can be disconnected from your session for up to 16 hours, after which it will be closed. Your programs are shut down and processes are ended when your session is closed.

For longer and more resource-intensive processing, please use our batch environment. Processing in the batch environment is not ended when your session is closed. A guide for the Batchclient program can be found in “MONA info”.



6.2. Closing your remote desktop session

After finishing your work, you should close your session by logging out via the Start menu in the remote desktop.

Click on the  **Log off** button, which can be found among the other icons in the start menu and should also be found at the top right corner of the start menu.

By closing your session, you ensure that software licences and performance capacity are released to other users.

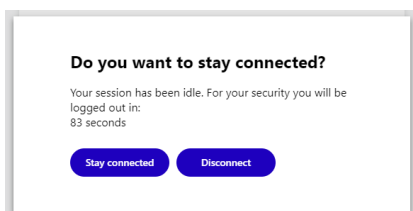
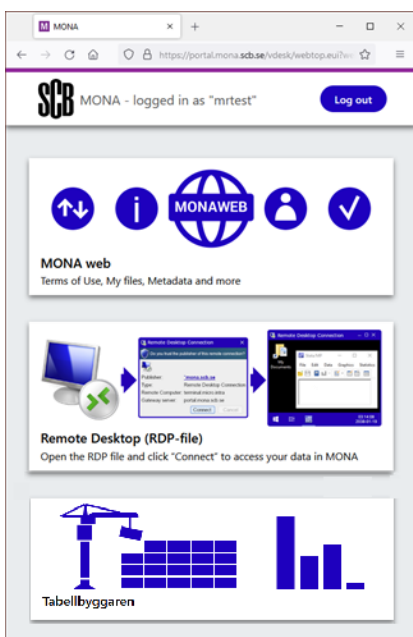
7. Logging out of the portal

7.1. Logging out of the portal

To log out of the portal, click on the button



If you close the remote desktop but still have a session running, logging out of the portal will not affect this.



7.2. Logging out of the portal due to inactivity

If you do not have a remote desktop open or are not actively doing something in the portal or MONA web, you will be automatically logged out of the portal after 5 minutes.

Before logout, you will be asked whether you want to stay logged in. The question is visible in the portal for 90 seconds, after which you are logged out.

8. Ending your use of MONA

Remember to inform MONA Support when you no longer have the right to use MONA, i.e. when your employment is terminated or you no longer need to use MONA. In the “Delete Account” tab of MONA web, you can request that your account be closed and deleted.