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This document describes first the installation procedure for the single-user version, then the installation procedure for the server version.

The installation of the demo version is the same as for the commercial version. If you only want to evaluate the program, we recommend that you install only the single-user version, that will give you already a good idea of the program's possibilities.

In the opposite list, click on the topic you are interested in.

## Required configuration

Before you install the software, please check that your computer(s) have the minimal configuration described on our web site :

<http://www.bibliomaker.ch/documentation>



## Single-user version

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This chapter describes the installation process of BiblioMaker's single-user version.



In the opposite list, click on the topic you are interested in.



## Installing the single-user version

Download the software from our web site <http://www.bibliomaker.ch/download-app>.

Install the software by launching the downloaded installation program.

Windows	macOS
 <p>The installation program creates a folder called <b><i>BiblioMaker</i></b> in <b><i>C:\Program Files\BiblioMaker\</i></b>.</p>	 <p>The installation program creates a folder called <b><i>BiblioMaker</i></b> in the <b><i>Applications</i></b> folder at the root level of the hard disk and put the <b><i>BiblioMaker</i></b> application inside it.</p>
<p>The setup program creates a shortcut for the BiblioMaker application in the <b>Start</b> menu and in the task bar.</p>	<p>If you wish, create and put an alias for the BiblioMaker program on the Desktop or in the Dock.</p>

## Automatic Updates

BiblioMaker includes a function for automatic updates: when an update is available, you are informed and can start up the update with a single mouse-click.



Please don't forget that your antivirus software could disturb a future automatic update and we recommend that you minimize this risk, for example by configuring the software so that it does not prevent changes in the **BiblioMaker** folder inside the programs folder. Please read the documentation delivered with your antivirus software.



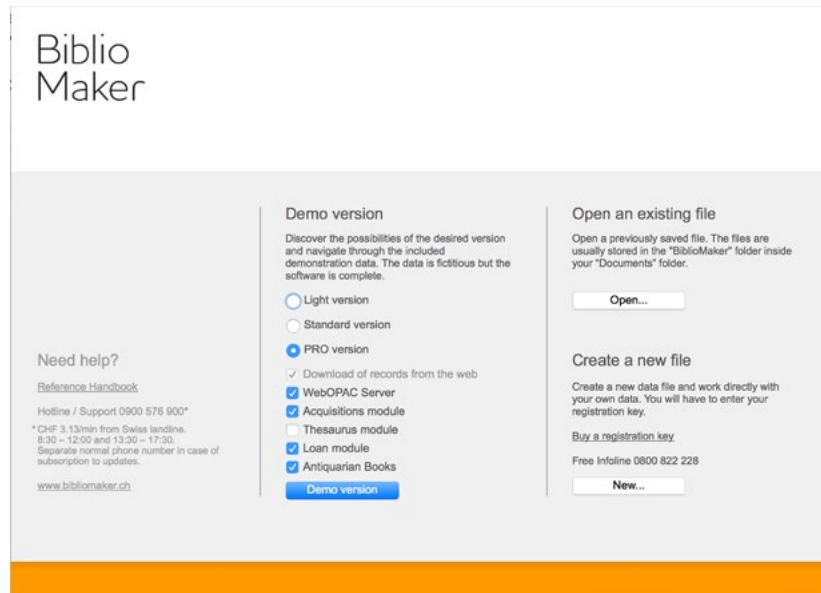
A restrictive configuration of Internet access may also prevent future automatic updates. Check with your network administrator to make sure that your computer has an Internet connection and that it can connect to our servers located in the following domains :

- \*.*bibliomaker.ch*
- \*.*microconsulting.ch*

## Demo data file

When you launch the software for the first time, a homepage is displayed that lets you open a demo data file containing fictive data, so that you can try the software.

The demo data file is saved by the software in the **Documents\BiblioMaker\** folder of the current user account.



If you want to try the software with the demo data, select the software version and the additional functions, then click on **Demo version**. This homepage is displayed at each software startup, so you can try several software configurations.

After the software has been launched, do not hesitate to read the handbook by calling the **Consult documentation...** command in the **File** menu.

You can enter data in the demo data file, but don't enter data «for real». Indeed, if you eventually decide to buy the software, you will have to create your own data file and won't be able migrate to the new file the data entered in the demo data file.



## Creating the data file

*If you want to only evaluate the BiblioMaker program, you can skip this step.*

If you have decided to buy the software, create the data file you will use.

Launch BiblioMaker: the homepage is displayed. Click on the **New...** button in the «Create a new file» section. A dialog box is displayed and you can give the data file a name. The data file is saved in the **Documents\BiblioMaker\** folder of the current user account.

Please note that only the current user will be able to access the data file with the single-user version of BiblioMaker. If you want several users of the computer to have access to the data file independently of the opened session, please drag it to a shared folder (for instance **C:\Users\Public\Public Documents\** under Windows or **Macintosh HD:Users:Shared** under macOS).



The data file cannot be saved in the same folder as the application or in the folder containing the installed programs. Don't save either your data file in a folder shared «in the cloud» (such as *Dropbox*, *One Drive*, *iCloud Drive*, etc.), because the synchronization operations of such folders are not compatible with BiblioMaker. You could damage your data file or work with a file version that is not updated.

When creating a data file, the program asks for an activation key. This activation key has been given to you in the form of a code containing numbers and letters. Enter this code in the registration dialog and click on the button **Validate key via Internet**. The dialog fills up with your complete contact information.

## Server version

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This chapter describes in a short way the installation procedure for the server version 7 of BiblioMaker. It is destined to the server administrator, who should have a good knowledge of a computer's use and of its operating system.

This document doesn't address particular cases, such as the installation of several BiblioMaker Server programs on the same computer, or the use of a BiblioMaker Server in a mixed network (network with Macs and PCs under Windows).

In the opposite list, click on the topic you are interested in.





## Overview of the installation steps

The BiblioMaker Server program is installed in several steps:

1. [Installing BiblioMaker Server](#)
2. [Creating the data file](#)
3. [Configuring and startup of BiblioMaker Server](#)
4. [Installing BiblioMaker Client on the server](#)
5. [Copying the BiblioMaker Client setup program on a file server](#)
6. [Installing BiblioMaker Client on the client computers from the file server](#)
7. [Connecting to the server from the client computers](#)



Steps 1 to 5 are performed on the server, steps 6 and 7 on the client computers.

Before installing the program, please check that you have the following elements:

- Installation software for BiblioMaker (downloaded from our web site) :
  - Installation software for the server version
  - Installation software for the client version
- Activation key for BiblioMaker

## Installing BiblioMaker Server

Launch the installation program called **Install BiblioMaker Server**.

Windows	macOS
 <p>The setup program creates a folder called <b>BiblioMaker Server</b> in the <b>C:\Program Files\BiblioMaker\</b> folder.</p>	 <p>The installation program creates a folder called <b>BiblioMaker</b> in the <b>Applications</b> folder at the root level of the hard disk and put the <b>BiblioMaker Server</b> application inside it.</p>
<p>The setup program creates a shortcut for the BiblioMaker Server application in the <b>Start</b> menu and on the Desktop.</p>	<p>If you wish, create a shortcut for the BiblioMaker Server program and put it onto the Desktop or into the Dock.</p>

## Creating the data file



After the software has been installed, create the data file you will use.

Launch BiblioMaker Server. The program displays a dialog asking you what you want to do. Click the **Create a new data file...** button. Specify the name and location of the new data file.

You cannot save the database in the application folder or in the folder containing the installed programs. For instance, create a new folder called ***BiblioMaker*** in the ***Documents*** folder of the current user. Please note that only the current user will be able to access the data file locally on the server: if the data file must be accessed by several server administrators, save the data file in commonly accessible folder.



Don't save the data file in a folder that is shared on the network. Indeed, the data file is shared by the BiblioMaker Server application using its own protocol and not Windows' or macOS' filesharing protocol. By saving the data file in a shared folder, there would be a risk that a user accesses the data file from the network using the filesharing function and damages the file.



Don't save the data file in a folder shared «in the cloud» (such as *Dropbox*, *One Drive*, *iCloud Drive*, etc.), because the synchronization operations of such folders are not compatible with BiblioMaker. You could damage your data file or work with a file version that is not updated.

## Configuring and startup of BiblioMaker Server

Your computer network must use the TCP/IP protocol. By default, BiblioMaker Server communicates with the following TCP port numbers :

Software	Client-server	SQL*	Reserved*	Connection**	PHP*	HTTP*	HTTPS*
BiblioMaker	19813	19812	19814	19819	8002	8080***	8443

\* Not used by default, but reserved by the application. An error message can be displayed by BiblioMaker Server when starting up if the port number is already in use by another application.

\*\* Used by the connection dialog on the client side in order to display the server availability (TCP and UDP port).

\*\*\* The port number for the online catalogue (WebOPAC) can be freely defined.

You can change the TCP port numbers used by the BiblioMaker Server software (read on).

If a firewall protects your server, open the above mentioned port numbers so that the client computers can connect to the server. If you don't open the TCP ports used by BiblioMaker Server, the client computers will be able to «find» the server, but cannot connect to it (error message with Nr -10'002).



In this chapter, the **Settings** are often mentioned, as they contain many settings. We recommend that you change only the mentioned settings and leave the other ones alone, in order not to make the software unstable.

## Memory allocation



When you call the **Settings**, please choose the **User settings for Data file**, as these settings will be saved during a software update.

If more than 5 client computers will connect simultaneously to the server or if the data file size is or will be over 500 MB, the memory settings by default should be changed :

Launch BiblioMaker Server (at the first launch, press and keep the Alt key pressed in order to create your own data file) and define the cache memory's size in the **Settings>User settings for Data file...**, available from the **File** menu (macOS) or **Edit** menu (Windows). You define the cache's parameters under **Database > Memory** tab.

You can choose between two kinds of settings :

- the “forced cache” (the check box **Calculation of adaptive cache** is not ticked). You define a size for the cache memory without taking the available machine resource into account.
- the “adaptive mode” (the check box **Calculation of adaptive cache** is ticked). The cache memory is calculated dynamically depending on the available free memory.

With the adaptive mode, you set up the size of the **memory to be reserved for other applications and for the system** (this memory size is used by the operating system and by other applications running concurrently, BiblioMaker Server will not use it for its cache), the **percentage of available memory used for cache**, its **maximum** and **minimum size**.

Ideally, the cache memory should be equal to the data file's size. If the server doesn't have enough RAM, give a smaller amount of cache memory. The cache memory should not be smaller than 1/3 of the data file size.

Resizing the cache memory requires a restart of BiblioMaker Server in order to be taken into account.

NB: the size of your data file is dependent on the data quantity it holds. This size will grow as time goes by. When you create the database, the file size is under 5 MB, but it could grow as big as tens or hundreds of megabytes. Therefore, it will be necessary to regularly check the cache memory's size or the total server's RAM and compare it with your data file's size.

## Automatic backups

Server versions of BiblioMaker include a backup tool for automating backups.

This backup tool lets you choose between two complementary backup strategies :

- Full backup of the data file. This strategy is sufficient if the number of daily changes is not too big.
- Incremental backup : all changes brought to the data file, such as adding, modifying and deleting records are saved in a log file. This strategy is useful if the number of daily changes is fairly big.

## Setting up backups

Launch BiblioMaker Server and if necessary choose the data file to open.

In the Administration window, **Maintenance** theme, you can check the date and time of the last full backup, the date and time of the next full backup and the needed and available space.

Click on **Preferences...** in order to change the backup settings.

In the **Scheduler** tab, set up the backups frequency.

In the **Configuration** tab, define the backup contents. Only the data file and the user structure file need to be backed up (the structure file with the **.4DZ** extension correspond to the BiblioMaker application ; should you restore the program, we recommend to download if again and not from a backup).

Define then the path of the backups with the ... button (of course, we recommend to save the backups on another physical disk than the disk used for hosting the original data file).

In the **Backup & Restore** tab, define general settings.

If you'd like to set up the second backup strategy (incremental backups), tick in the **Configuration** tab the **Use log file** check box and define its path on the disk (we recommend that you choose another physical disk than the disk hosting the original data file ; nevertheless, avoid file servers : in fact, the log file is continually on use and any network interruption would make it useless). The log file sports the name of the data file followed by the **.journal** extension (for instance **BiblioMaker.journal**).

A log file is always synchronised with a full backup file, as it contains only the changes brought to the data file after the last full backup. By the next full backup, the log file is archived and a new log file is created. The current log file always sports the same name. On the other hand, the archives of log files sport the name of the log file followed by a number, so that you may identify with which full backup a log archive is synchronised (for instance **BiblioMaker[0004].4BL**).

After you have validated the Database properties, a full backup starts automatically.

Each backup file sports the name of the original data file followed by the backup number in brackets and then finally the *.4BK* extension (for instance ***BiblioMaker[0001].4BK***). The backup number is incremented by each full backup and lets the administrator quickly find the most recent full backup.



## Incremental backups

The incremental backup saves in a second file all changes brought to the data file (adding, modifying and deleting of records) since the last full backup. It lets you restore the last full backup and integrate all operations that happened after the full backup, until the crash happened. This file is called the *log file*.

The incremental backup is synchronised with the full backup. This is why it is necessary to setup and perform a full backup before setting up an incremental backup.

Activating the incremental backups is described in the previous chapter.

A log file is always synchronised with a full backup file, as it contains only the changes brought to the data file after the last full backup. By the next full backup, the log file is archived and a new log file is created. The current log file always sports the same name. On the other hand, the archives of log files sport the name of the log file followed by a number, so that you may identify with which full backup a log archive is synchronised (for instance ***BiblioMaker[0004].4BL***).

Please note that the first archive of a log file sports the number ***0000***, as the data contained in the first log file have been entered before the first full backup.

## Restoring a backup

In case of an incident with the data file, you can of course restore a data file backup. Please read the document *Office Maker/BiblioMaker Administrator handbook*.

We recommend that you restore a backup at least one time as an exercise. By doing so, you can check that backups are OK and you get the experience if a real incident happens.

## Client-Server connections

### TCP Port numbers

As a reminder, BiblioMaker Server uses the following TCP port numbers :

Software	Client-server	SQL	Reserved*	Connection**	PHP*	HTTP*	HTTPS*
BiblioMaker	19813	19812	19814	19819	8002	8080***	8443

\* Not used by default, but reserved by the application. An error message can be displayed by BiblioMaker Server when starting up if the port number is already in use by another application.

\*\* Used by the connection dialog on the client side in order to display the server availability (TCP and UDP port).

\*\*\* The port number for the online catalogue (WebOPAC) can be freely defined.

These port numbers can be changed in the **Settings>User settings for Data file...** of BiblioMaker Server, under the following themes :

- **Client-Server**
- **Web**
- **SQL**
- **PHP**

Please note that changing the *Client-Server* port automatically changes also the following ports :  
*Reserved* = *Client-server* + 1 ; *Connection* = *Client-server* + 6.



When you call the **Settings**, please always choose the **User settings for Data file**, as these settings will be saved when updating the software.

## Automatic startup

Windows	macOS
<p>BiblioMaker Server can be registered as a service, so that the program starts up even if no session has been opened on the server.</p> <p>In the <b>File</b> menu of BiblioMaker Server, select the <b>Register as service</b> command.</p> <p><i>Notice : if this command is not active, you must quit BiblioMaker Server and run the software as an administrator (in the Windows Explorer), make a right click on the software icon and choose <b>Run as administrator</b>).</i></p> <p>Then, open the <b>Services</b> app, display the <b>Properties</b> of the <b>4D Server:BiblioMaker</b> service. Under the <b>General</b> Tab, define the <b>Startup type</b> as <b>Automatic</b>. <b>Under the Log on tab, select an account that is <i>not</i> the local system account: we recommend to choose the account used by the server administrator.</b></p> <p>The program will then be launched automatically after each computer's boot. BiblioMaker Server will continue to run even after an administrator has logged out.</p>	<p>This function does not exist under macOS. You can nevertheless configure your server so that BiblioMaker Server automatically starts up after the login : open the <b>System preferences&gt;Accounts</b>, select the corresponding account and in the <b>Login items</b> tab, add BiblioMaker Server to the list of applications to be started.</p> <p>You can also configure the computer to automatically open a session when starting up : open the <b>System preferences&gt;Accounts</b> and in the <b>Login Options</b>, choose the account to open in the <b>Automatic login</b>.</p>

If you create the user account for the occasion, it is essential to log in with this account and recommended to register the service and its properties from this account.

## Power saving

You can activate the Display sleep.

Prevent unwanted disconnections between the server and the clients by setting up the server, so it never falls asleep :

Windows	macOS
Open the Power management Control panel, set the <b>Power schemes on Always on, Turn off hard disks on Never and System standby on Never.</b>	Open <b>Energy saver</b> in the <b>System preferences</b> . Do not put the computer or the hard disk to sleep. Otherwise, the communication with the client computers would be interrupted as soon as the server falls asleep.

## Automatic updates

BiblioMaker includes a function for automatic updates: when an update is available, you are informed and can start up the update with a single mouse-click.



Please don't forget that your antivirus software could disturb a future automatic update and we recommend that you minimize this risk, for example by configuring the software so that it does not prevent changes in the **BiblioMaker** folder inside the programs folder. Please read the documentation delivered with your antivirus software.



With the server version, the information about an update is displayed on a client computer. But if a user starts an update, the download and software update are performed on the server. This is why it is important the server to have access to the Internet and be able to connect to our web servers :

- \*.*bibliomaker.ch*

- \*.*microconsulting.ch*

Please configure your server and your network (firewall and/or proxy) so that the connections to our update server are not blocked.



Under macOS, the *Updater* application used for updating must have the necessary permissions. In the **System Preferences>Security & Privacy>Privacy tab>Full Disk access**, add to the list the Updater application located under : *Macintosh HD:Users:[User name]:Library:Application Support:BiblioMaker:4D:Updater*.

During an automatic update, the active connected workstations are warned by a message and have a 5-minute delay to exit the client application for the cloud versions and a default delay of 10 minutes (modifiable by the administrator) for the local servers.

## Installing BiblioMaker Client on the server

We recommend to install the BiblioMaker Client software on the server in order to define some software parameters and to access the data file locally. Download the installation program from the [BiblioMaker web site](#), then launch it. Then follow the instructions given on screen.

After the software has been installed, launch it and connect to the BiblioMaker Server software. You can thus check that the server can be reached from the client computers.

When creating a data file, the program asks for an activation key. This activation key has been given to you in the form of a code containing numbers and letters. Enter this code in the registration dialog and click on the button **Validate key via Internet**. The dialog fills up with your complete contact information.

Don't forget to quit BiblioMaker Client in order to let the client computers connect to the server.

## Copying the Client setup program on a file server

We recommend to create a shared folder on a file server, folder that will contain the installation program for BiblioMaker Client. You will then install the client software over the network.

Copy the BiblioMaker Client installation program (file *Install BiblioMaker Client* downloaded from the [BiblioMaker web site](#)) into the shared folder on the file server.

The operations on the server are over. Keep your installation program and activation key should you need to repeat the installation process eventually.

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The following operations are executed on the client computers. You must connect to the file server or download the BiblioMaker Client installation program from the [BiblioMaker web site](#).

## Installing BiblioMaker Client on the client computers



We recommend that you perform this step with an Administrator account.

Copy onto the client computer the setup program for BiblioMaker Client and launch it. By default, a folder *BiblioMaker Client* will be created inside the **C:\Program Files** folder (Windows) or **Applications:BiblioMaker** folder (macOS). You can create a shortcut (alias) of BiblioMaker Client and put it onto the Desktop, in the task bar (Windows) or into the Dock (macOS).



## Connecting to the server from the client computers

Start the BiblioMaker Client software. At the first startup, a wizard is displayed in order to make the connection to the server easier. Click on the button **I have a local server**. The wizard displays the servers found on the local network at the specified port number. If the server is available on a different port number, enter the port number and click the magnifying glass to search for the server again.

The servers found appear in the list. Select the desired server and click the **Next** button. Give a name to the server (preferably the name of the library) and validate.

If the wizard does not find the server, click the **My server is not in the list** button. Enter the name of the server (preferably the name of the library) and its IP address followed by the port number (such as *192.168.1.10:19800* or *server.mylibrary.ch:19800*). Validate.

In the next step, select the **Add [server name] to favorites** and optionally **Show at startup** check box if you want to have a dialog box for selecting the server every time the client software starts. Finally, click the **Connect** button to connect to the server.

After an update of BiblioMaker Server, the client software will be automatically updated during the subsequent connection.

## Standby of client workstations

BiblioMaker Server tolerates that connected client computers go to sleep. The following points are nevertheless important :

- The connected client computers can remain in standby mode for a maximum of 24 hours. At the end of this period, the server cuts the connection with these computers.
- The automatic updates of the server software require a connection interruption and therefore the workstations in standby are automatically disconnected. In the cloud version, the server receives security updates once a month and software updates are possible any night of the week at 3 a.m.
- If records are being modified when the workstation is put to sleep, they remain locked for the other stations.



For all these reasons, it is recommended to limit the standby state to short periods (e.g. breaks during the day) and to quit the client software every evening.

In the server administration console, on the **Users** page, it is possible to distinguish between idle and active workstations: the **Activity** column shows «Sleeping» instead of an activity percentage.

# BiblioMaker

## Technical support

In case of an issue, please call our Support department:

From Switzerland :

0900 576 900

(Fr. 3.13/minute from the Swiss landline network)

From Switzerland and abroad :

+41 (0)21 651 77 68

(not overtaxed call,  
only for users with an update subscription)

Micro Consulting SA  
Chemin de Budron A 12  
CH-1052 Le Mont sur Lausanne  
Switzerland

Web site : [www.bibliomaker.ch](http://www.bibliomaker.ch)

