Office Maker Biblio Maker

Contents

This handbook is destined to the IT administrator, responsible for the server. It describes how to install and to set up the BiblioMaker 7 or Office Maker 7 server software, on the server and on the client computers.

Office Maker and BiblioMaker software systems are installed and set up in a very similar way. This is why we will mention only Office Maker in this handbook.

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

Using Office Maker Server

This chapter describes Office Maker Server's Administration window.

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

Administration window
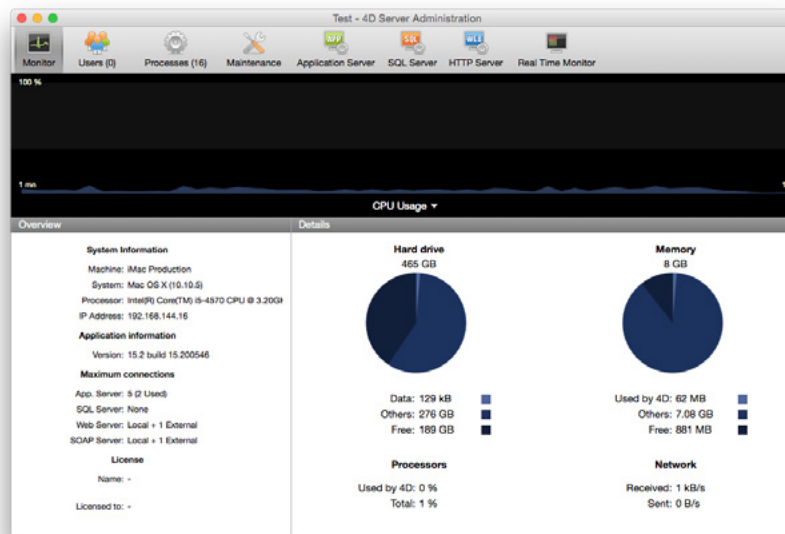
When running, the Office Maker Server software displays a dialog box called **Office Maker Server**, containing several information about the server activity. On the top of the window, several buttons let you browse the information pages.
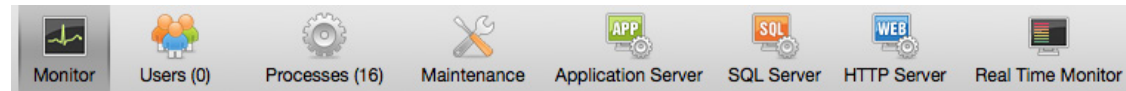
Monitor page

This page displays a graph showing in real time the use of processors, of the network and of the random access memory. Click on the pop-up menu under the graph in order to display other information.

Under the graph, several information about the server are displayed : system version, processor model, 4D Server version, license, use of the hard disk and of the random access memory.

Under Windows, some of the system information displayed on the Monitor page are retrieved via the Windows «Performance Analyzer» tools. These tools can only be accessed if the user who opened the session where BiblioMaker Server was launched has the necessary authorization. This user must belong either to the «Administrators» or to the «Power Users» group (for a user who is not an Administrator).

Users page

This page lists the users connected to the server. Please always check this page before stopping Office Maker Server. If possible, don't stop Office Maker Server if there are users connected, because you would interrupt a user operation (entering of data, search, etc.). It is better to ask the users to quit Office Maker Client before you stop Office Maker Server.

This list may be personalised by moving the columns. A click on a column header sorts the users by the value of that column.

On the bottom of the window, three buttons are available :

- **Send message** : sends a message that is immediately displayed on the screen of the selected user(s). To select several users simultaneously, use the Shift or Ctrl (Windows) / Cmd (macOS) keys.

- **Watch processes** : lets you check the current processes for the selected users. Theses processes are displayed in the **Processes** page.

- **Drop user** : disconnects the selected users from the server. Of course, this operation is to be used only as final recourse, because if the user is entering data, these data will be lost. This command may be used in two cases :

  - A user has started an operation that is looping indefinitively and cannot stop it.

  - A user has been disconnected from the server, but the connection is still displayed on the server («phantom connection»). As your Office Maker license is limited to a certain amount of concurrent connections, a phantom connection prevents another user from connecting to the server. By deleting this connection, you free a connection for another user.
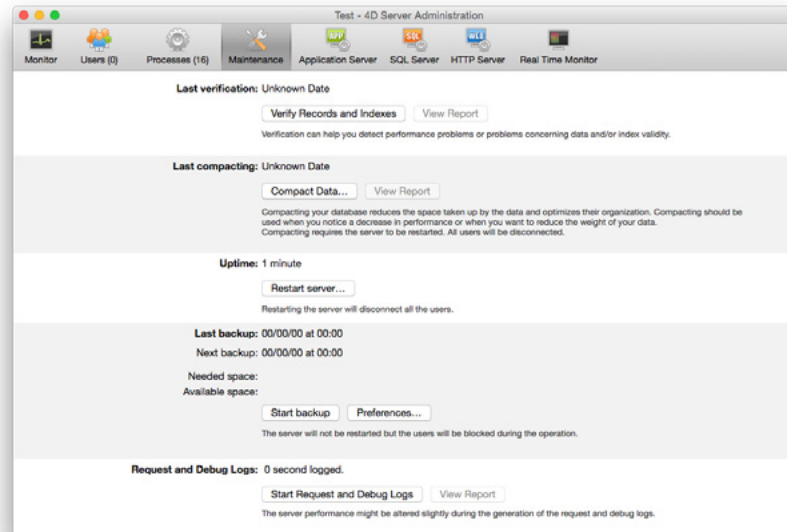
Process page
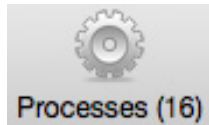
This page lists the current processes. It is usually not relevant for the database administrator.

Maintenance page

This page provides information concerning the current operation of the database. It also provides access to basic maintenance functions.

Last verification : displays the last verification's date. By clicking on **Verify records and indexes**, you start a verification without stopping the server (but the server may be noticeably slowed down during the operation). Click on the **View report** button in order to look at the verification result.

Last compacting : displays the date of the last compacting operation carried out on the database data. Click on the **Compact data...** button to start the compacting operation. As compacting the data stops the server, use this command only when no user is connected. Click on the **View report** in order to look at the compacting result.

**Uptime** : displays the duration of the server operation since the last time it was started. Click on Restart

server… if you want to restart BiblioMaker Server immediately. A dialog lets you choose the interruption mode : disconnect in x minutes (a message is sent to connected users), wait for all users to disconnect, disconnect all users without warning and quit.

Last backup : displays the date and time of the last full database backup, the date and size of the next backup. Click on **Start backup** if you want to backup the database now. You may check and change the backup parameters with the **Preferences…** button. Please note that a backup does not disconnect users, but they won't be able to modifiy the data during the backup. Moreover, new users won't be able to connect to the database during the backup.

Request log : displays the duration of recording log requests. Click on the **Start request and debug logs** button if you want to log the requests (caution, this may noticeably deteriorate server performance) and on the **View report** button in order to look at the log.

Application Server page
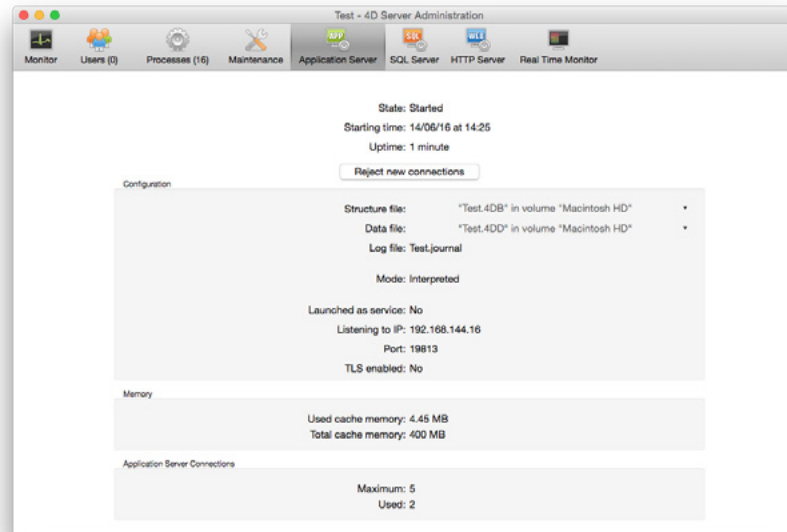
This page groups together information about the published database.

Click on the **Reject new connections** button in order to prevent new users from connecting to the server (current connections keep active). The button's name changes to **Accept new connections**.

Configuration : this area displays information about the published database : structure file (belonging to the program), data file. Please note that by clicking on the file name, you get the file's full path.

Memory : this area displays the total cache memory (as defined in the database preferences) and the used cache memory (dynamic allocation according to the needs).

Maximum connections : maximum number of simultaneous client connects allowed by your license.

SQL Server page
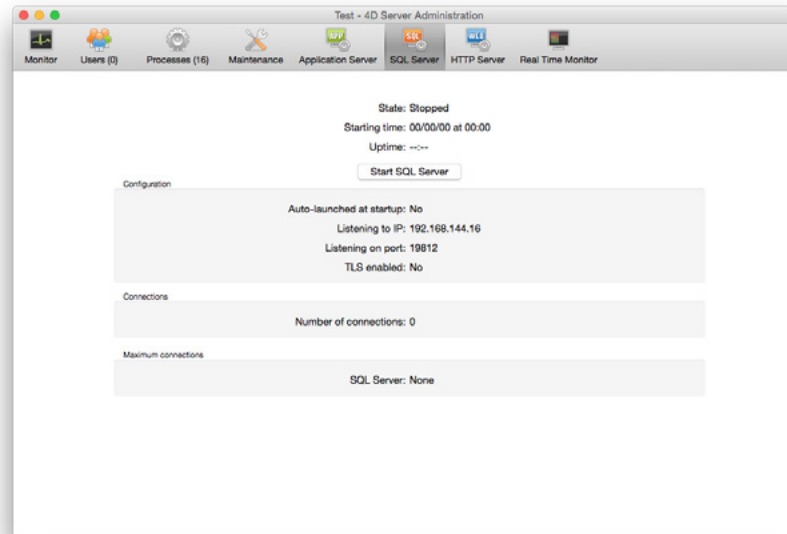
This page groups together the information about the integrated SQL server.

Click on the **Start SQL Server** in order to let users connect to the SQL server. The button name toggles to **Stop SQL Server**.

Configuration : this area displays information about the SQL server parameters.

Connections : this area displays the current SQL connections.

Maximum connections : maximum number of simultaneous SQL connections depending on the license.

HTTP Server page
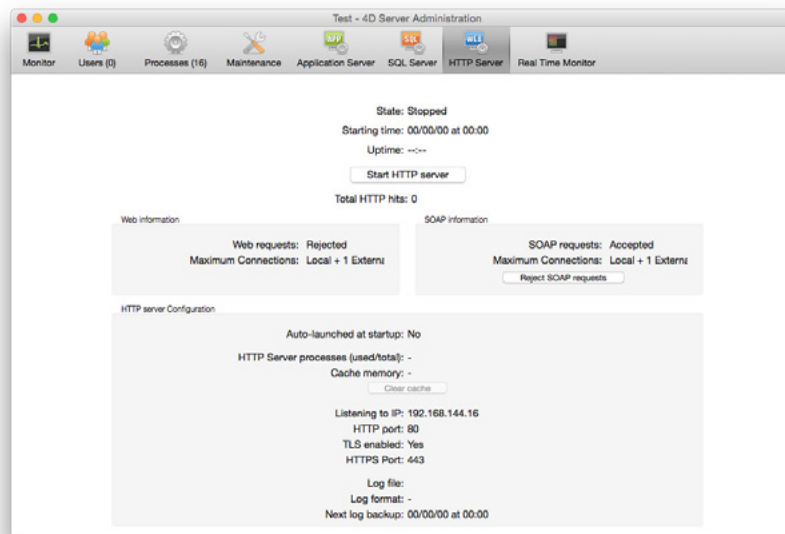
This page groups together information about the integrated web server and the SOAP server (used for web services) for Office Maker Server.

Status information : displays information about the web server status and its uptime. Click on the **Stop HTTP server** button in order to stop the web and SOAP servers.

The three areas displayed in the lower part of the window provide information about the web and SOAP servers. You define the parameters in the Office Maker Server preferences.

BiblioMaker uses a web server when publishing the online catalogue, but it is not this server. This is why it is not necessary (and even not recommended) to start this HTTP server.

Real Time Monitor page
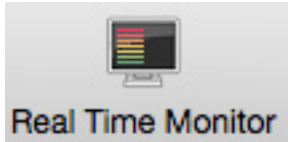
This page lets you monitor the current operations on the server. It is useful mainly for the Office Maker developers and not relevant for the database administrator.

Stop Office Maker Server

You stop Office Maker Server by calling the **Quit** command in the **File** menu (Windows) or in the application menu (macOS). Office Maker suggests to stop after 10 minutes in order to give the users the time to disconnect from the server. If no user is connected, Office Maker Server quits immediately.

If users are connected when you ask the server to quit, an alert is displayed on their screen with a countdown. If users don't quit Office Maker on time, they get an error with number -10'002.

If Office Maker Server has been registered as a service (this automates the startup of Office Maker Server on the server even if no session is open), you may also stop Office Maker Server using the services control panels (under Windows only). But please notice that stopping the Office Maker Server service immediately disconnects the currents users without warning.

Using several Office Maker Server instances

This chapter describes the Office Maker Server setup in special cases, such as when several instances of Office Maker Server are installed on the same server or in the same network.

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

Several OM Server software on the same computer

If you want to use several Office Maker Server applications on the same computer (for instance Office Maker Business and Office Maker Finance) or if you want to host several data files of the same program on the same server (for instance if you are a trust company managing one Office Maker Finance data file for each customer), please read on.

Several OM Server applications on the same server

If you want to use different Office Maker Server applications on the same computer, install each software as described in the installation guide located on the Documentation page on the Office Maker or BiblioMaker web site.

Office Maker uses the TCP/IP protocol for communicating between the server and the client computers. Each Office Maker server must use a unique TCP port number in order to avoid conflicts.

By default, Office Maker applications are configured in order to use the following TCP port numbers :

Software	Client-server	SQL*	Reserved*	Connection**	PHP*	HTTP*	HTTPS*
BiblioMaker	19813	19812	19814	19819	8002	8080***	8443
OM Business	19813	19812	19814	19819	8002	8080****	8443
OM Finance	19823	19822	19824	19829	8002	8080	8443
OM Staff	19833	19832	19834	19839	8002	8080	8443

* Not used by default, but reserved by the application. An error message can be displayed by Office Maker Server during the startup if this port number is in use.

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

*** If the WebOPAC module is activated, an additional port (with a customisable number : 80, 8080, etc.) can be used.

**** Used for querying the database from a smartphone.

If you'd like to use another TCP port number, please proceed as follows:

In each Office Maker Server application, display the **Settings**>**User settings for Data file** (under Windows in the **Edit** menu, under macOS in the application menu). Choose the **Client-Server**>**Configuration** theme and change the port number. After you have saved the preferences, restart Office Maker Server in order the changes to be taken in account.

Client computers connect to Office Maker Server with the Office Maker Client application. When connecting to the server for the first time, the Client software displays a wizard. If the server address must be entered manually, please use the following syntax : [IP address]:[Port number]. Example : *192.168.2.23:19813*

If a firewall protects the access to your server, don't forget to change its settings in order to open the port numbers defined on the server. If you don't open the IP port numbers used by Office Maker Server, the client computers will be able to «find» the server, but won't be able to connect to it (error message with number -10'002).

Several identical OM Server instances on the same server

The Office Maker Finance and Staff Server applications can open several periods but not at the same time (switching the period is done by calling the **File>Change period** command from the Office Maker Client software). Installing several copies of Office Maker Server is not necessary in this case.

Each Office Maker Server application is able to open only one data file at a time. If you want to publish several data files from the same application on the network (for instance Office Maker Finance), you must install one copy of Office Maker Server for each data file; if possible each copy should be in its own folder.

You can simply duplicate the folder containing the first copy of the application.

After you have installed the second copy, open the folder containing the copy of the Office Maker Server software :

Windows	macOS
Open the folder named **Server Database**. You will find a file sporting the name of the Office Maker application, with the extension **.4DZ**. Rename it, leaving its extension (for instance **OM Finance 2.4DZ**).	Display the contents of the Office Maker Server package with the contextual menu, then open the folder **Contents:Server Database**. You will find a file sporting the name of the Office Maker application, with the extension **.4DZ**. Rename the files, leaving its extension (for instance **OM Finance 2.4DZ**).

The name you define here will be used by the Office Maker Client application for the connection to the server. This is why we recommend that you give a comprehensible name to these files, so that the users may choose the right Office Maker database to connect to.

The port number used by each Office Maker application must be unique. Modify this parameter according to the method described above.

Several identical OM Servers on the same network

If you install several copies of the same BiblioMaker Server program in the same network (for instance several departments in your company using each Office Maker Finance), we recommend that you rename the Office Maker Server applications in order to facilitate their identification in the Office Maker Client connection dialog box.

The method for renaming an Office Maker Server program is explained above.

Several OM Clients on the same computer

If several Office Maker Server programs are available on the network and the client computer must be able to connect simultaneously to several databases, you can install several copies of the Office Maker Client application.

Windows	macOS
Please duplicate the folder containing the Office Maker Client software located in the Programs folder.	Please duplicate the folder containing the Office Maker Client Software located in the Applications folder.

Using favorites

When starting the Office Maker Client software, press and hold the Shift key until a server connection dialog appears.

This dialog consists of two areas: on the left the category area and on the right the list of favorites corresponding to the selected category.

In the left zone, if necessary, create a favorites folder using the **+** button at the bottom of the zone. You add favorites by clicking on the **+** button in the right zone. Each favorite consists of a freely definable name and a server address with the following syntax: [IP address]:[Client-server TCP port number]. Example: *192.168.1.23:19813*

Once the favorites have been created, simply select the desired favorite and confirm with the **Sign in** button (or double-click on the favorite) to connect to the chosen database.

The colored icons to the left of each favorite provide information on the availability of the databases.

Office Maker in an heterogenous network

This chapter describes the peculiarities when installing Office Maker in an heterogenous network.

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

Heterogenous network

A network is said heterogenous if the connected computers are based on different platforms : for instance macOS and Windows.

Office Maker Server can work in an heterogenous network and communicate simultaneously with client computers under macOS and under Windows using the TCP/IP protocol.

Installation and setup of the client computer

Office Maker Server is installed in the usual way. But the preparation of the installation on the client computers is particular, because each client computers will use a software developed for its own platform.

The best strategy is to download the Office Maker Client setup program on a file server that can be reached by the client computers of each platform. Then, each client computer downloads the setup software from the file server and installs Office Maker Client and further files following the above mentioned method.

Backups

This chapter describes the automatic backups tools included with Office Maker.

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

Backup strategies

Office Maker and 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 also in a log file). This strategy is useful if the number of daily changes is fairly big.

Full Backups

Start Office Maker Server (under Windows, stop the service first and start up the application with the File Explorer).

The main Office Maker Server window shows up and you can see on the **Maintenance** theme the date and time of the next and of the last full backup.

You define the parameters for backups by clicking the **Preferences** button.

In **Backup**>**Scheduler**, define the full backup frequency.

In **Backup**>**Configuration**, define the backup contents. Only the data file and the user structure file need to be backed up (the structure file with the *.4DC* extension correspond to the Office Maker application ; should you restore the program, we recommend to download it from the Office Maker/BiblioMaker website 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).

If you'd like to setup the second backup strategy (incremental backup), tick the **Use log file** check box : a dialog box for saving a file is displayed, so that you can choose the log file's path. We suggest that you save the log file in the same folder as the full backups; but prefer a local disk : indeed, the log file is continuously open and any network interruption would make it unusable. By default, the log file sports the name of the data file followed by the *.journal* extension (for instance **OM Finance.journal**).

In **Backup**>**Backup & Restore**, define general settings. Normally, only the two first check boxes are relevant, as the other settings should be OK for most of the cases.

After you have validated the Preferences, start up manually a full backup with the **Backup** command in the **File** menu. A dialog box shows up, displaying the date of the last backup and the path of the next backup. Validate with the **Backup** button.

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 **OM Finance[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 full 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 which full backup a log archive is synchronised with (for instance **OM Finance[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

When Office Maker Server starts up, the application checks the data file automatically and then detects the following possible problems :

1. Office Maker Server has unexpectedly quit and the cache memory was empty. In this case, the data file on the disk is up to date and does not need to be repaired.

2. Office Maker Server has unexpectedly quit and the cache memory contained data that have not been saved on disk. In this case, the data file is not up to date and the missing data must be integrated with help of the log file.

3. Office Maker Server has unexpectedly quit as the application was writing to the data file. In this case, the data file is probably damaged : you must restore the last full backup and integrate (with help of the log file) the changes brought to the data file after the last full backup.

Restore can be automatic or manual. For security reasons, we recommend to manually restore a database.

Automatic restore needs specific settings in Office Maker Server Preferences. Call the **Database settings**>**User settings for Data file** in the **Edit** menu (Windows) or in the **File** menu (macOS). Choose then the **Backup**>**Backup & Restore** theme. Two check boxes are displayed :

Restore last backup if database is damaged : this option solves the third above-cited problem.

Integrate last log if database is incomplete : this option solves the second above-cited problem.

Please note that in case of the restore of a full backup, Office Maker Server first renames the damaged data file. This file can then be repaired by the server administrator with help of the repairing tool integrated in Office Maker Server.

Manual restore of a full backup

A full backup may also be restored manually :

With Office Maker Server	With Office Maker (single-user version)
In the **File** menu, choose the **Restore...** command.	Start the single-user of BiblioMaker and press the Alt key during the startup, so that you get a dialog box giving you several choices. Choose the **Restore a backup file** option.

A dialog box shows up and you may choose the path of the restored data file. By default, the suggested path is in the same folder as the backup. If you want to define another location, click on the **...** button and choose the path on the disk. Finally, start up the restore with the **Restore** button.

The data file is restored in a folder sporting the same name as the data file followed by the backup number (for instance **OM Finance[0012]**. Another folder called **Settings** is also created.

Move the restored data file to the folder containing the original damaged data file, delete the damaged data file and start up Office Maker Server.

Notice : the restored **Settings** folder contains a file **Backup.4DSettings**. This file is a backup of the file containing the backup settings. So, if you want to use this settings file again, replace the original file located in the **Settings** folder near the data file.

Please note that it may be easier to setup again the backup settings in the Office Maker Server Database settings (**Settings**>**User settings for Data file**).

Manual restore of an archived log file

You may also restore manually an archived log file :

With Office Maker Server	With Office Maker (single-user version)
In the **File** menu, choose the **Restore…** command.	Start the single-user of BiblioMaker and press the Alt key during the startup, so that you get a dialog box giving you several choices. Choose the **Restore a backup file** option.

A dialog box shows up and you may choose the path of the restored data file. By default, the suggested path is in the same folder as the backup. If you want to define another location, click on the **…** button and choose the path on the disk. Finally, start up the restore with the **Restore** button.

If you save the restored log archive file in the same folder as the restored full backup (both file names must contain the same number), Office Maker Server compares both files and if the restored full backup does not contain the last operations saved in the log file, the application asks you if you want to integrate the log file into the full backup. If you accept, the integrations starts immediately. Then, the program lets you open the restored data file.

Troubleshooting and documentation

This chapter describes some common issues and their solution.

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

Troubleshooting

The client-server architecture involves three «actors» :

- The server

- The client computer

- The network

When an issue happens, the first thing to do is to discover which one of the «actors» is the origin. Here a list of the most common problems:

- The program unexpectedly quits or misbehaves when you call a certain function

- Error -10'001 or -10'002 displayed on the client computer

- When launching the BiblioMaker Client program, you cannot connect to the server

Symptom : the application unexpectedly quits or misbehaves

When using the application on a client computer, calling a function makes the program misbehave (crash for instance). If this behaviour can be repeated each time you call the same command, but only on one client computer, the most likely cause is a damaged file on this computer. Indeed, the code of the program is executed on the client computer. This code is saved on the hard disk, in a specific folder. You just have to quit BiblioMaker Client, delete this folder and to connect again to the BiblioMaker server. The folder will be downloaded again from the server.

The path of this folder is the following one :

Windows	macOS
C:\Users\[Name of the current account]\ AppData\Local\[Name of the Office Maker application]\[Name of the Office Maker application followed by the server's IP address]	*Macintosh HD:Users:[Start folder]: Library:Caches:[Name of the Office Maker application]:[Name of the Office Maker application followed by the server's IP address]*
Notice : the **AppData** folder is hidden by default. You may make it visible with the following command : Windows Explorer's **View** menu, **Options** menu, **View** tab, **Show hidden files, folder and drives** option.	Notice : the **Library** folder is invisble. You make this folder visible by displaying the Start folder in the Finder, then by calling the **Go**>**Go to folder...** command and by entering the *Library* name.

Symptom : error -10'001 or -10'002

When using the system on a client computer, an error message is displayed, with error number -10'001 or -10'002. These error numbers mean that the client computer cannot communicate with the server.

Regularly (even when the user is not actively using Office Maker), the Office Maker Client sends a message to the server to maintain an open connection. Office Maker Server then returns an answer to the client computer. If Office Maker Client doesn't get an answer from the server, after a certain delay it displays the error number -10'001 or -10'002.

There are several possible causes to the lack of communication between the client computer and the server :

- Server crashed : the server's operating system has crashed and the computer is freezed.

- Office Maker Server crashed: Office Maker Server has crashed and has been «ejected» by the operating system.

- Problem with the network connection : the network is out of order, because there is a software problem (router, bridge, network components on the computer and so on) or a hardware failure (network card, router, bridge, broken cable, etc.).

Check-ups

Here what you can do if the client computer is not able to communicate with the server :

- Check if all client computers are concerned with the problem. If it is the case, the problem lies at the server or the network level. Otherwise, the client computer should be the cause. Try restarting the computer, this solves a majority of such problems.

- Start up BiblioMaker Client and try to connect to the server. If this fails, check the server.

- If neither the server nor Office Maker Server have crashed, check the server connection with the network («ping» the client computer from the server). If necessary, restart the server.

- If Office Maker Server has been stopped in an unusual way (because of a crash for instance), the data file could be damaged. In this case, it is highly recommended to verify the data file integrity. This is done from the «Maintenance» page in BiblioMaker Server or in the Security and Maintenance center in the single-user version of BiblioMaker.

Verifying and repairing an Office Maker / BiblioMakerdata file is described in the Office Maker / BiblioMaker handbook, chapter «Maintenance».

Documentation

Installing and setting up Office Maker Server are described in the installation guide you will find on the Office Maker and BiblioMaker web sites.

This installation guide describes a simple configuration, it means only one Office Maker program on the server in a homogenous network (i.e. composed only of Macs or of PCs under Windows). If your configuration is different (for instance you would like to install several Office Maker applications on the same server and/or use a heterogenous network with a mix of Macs and PCs), please read the chapters Using several Office Maker Server instances and Office Maker in an heterogenous network.

Other documents explain how to use Office Maker and BiblioMaker. They can be reached from within the client or single-user versions of the software, by calling the **Consult documentation/handbook** command in the **Help** menu.

Technical support

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

0900 576 900 (from within Switzerland)
(Fr. 3.13/minute from the Swiss landline network)

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