# 25.13. mSupply server administration

mSupply server provides a number of administrative features that enable fine-tuning and robust management of the system.

The server can run as an application or as a service. Running it as a service has a lot of benefits, such as automatic restart when the server machine is restarted, but, for technical reasons, this is not always possible. Here's how you administer the server depending on how it is running.

# When running the server as an application

#### Server monitor

The server monitor tells us our computer hardware specification, database engine version, and license information including maximum connections



#### Users

The Users tab shows us connected users with LAN information, IP address, machine name and Windows logon user name

*	Monitor 🔮 Users (1) 🕴	🔅 Processes (23)	X Maintenance	Application Server 🛛 🛄 SQL Serve	r 📲 HTTP Server	User;Machine;Se	ssion	Q
	4D User	Mac	thine name	Session name	IP Address	Login date	CPU Time	Activity
	mSupply_user	SUSSOL-PC		sussol	192.168.3.220	21/05/2013 12:19	00:00:00	0 %
_			R					

#### Processes

The processes window shows system resource consumption for each process. This is a useful screen to analyse slow or otherwise unresponsive systems.

40	Monitor 🔮 Users (1) 👘	Processes (23) 💦 😹 Maintenar	nce 🛛 🖓 Application Server	👯 SQL Server 🛛 📇	HTTP Server Session;Proce	ss name	Q
	Display processes by groups			Users processe	15 (4) — 40 Processes (15	Spare pr	ocesses (4)
	Process name	Session	∽ Туре	Num	State	CPU Time	Activity
50	schedule		Stored procedure	4	Delayed	00:00:00	0.00 %
•	Client Manager	-	Application server	3	Waiting for flag	00:03:04	0.00 %
8	DB4D Flush		DB4D Server	0	Running	00:00:01	0.00 %
8	DB4D Index builder		DB4D Server	0	Running	00:00:00	0.00 %
0	Internal Timer Process		Application server	2	Executing	00:00:03	0.00 %
0	Task managers	-	SQL Server	0	Running	00:00:01	0.00 %
•	User Interface	-	Application server	1	Waiting for event	00:00:13	15.03 %
8	Application process	sussol	4D Client Process	5	Waiting for 1/0	00:00:04	0.00 %
8	MSU_sussol	sussol	4D Client Process	6	Waiting for VO	00:00:00	0.00 %
8	navigatorProc	sussol	4D Client Process	7	Waiting for I/O	00:00:00	0.00 %

#### Maintenance

The maintenance tab is where data info and actions can be retrieved and performed. The window shows when tasks were last performed and provides the settings to perform verification, data compacting and log recording.

# The Deckup tab provides set

The Backup tab provides settings to manage the way your data is backed up and where the backup file resides. This is a critically important section to manage properly as your data is a key asset of your system.

Schedule a backup:

Backup

#### mSupply documentation wiki - https://docs.msupply.org.nz/

File Edit Window Help	_ 8 ×
Monitor 👹 Users (1) 🔘 Processes (23)	🛠 Maintenance 🛛 🍓 Application Server – 🜉 SQL Server – 🜉 HTTP Server
Last verification:	Unknown Date           Verify Records and Indexes         View Report           Verification can help you detect performance problems or problems concerning data and/or index validity.
	Unknown Date Compact Data View Report Compacting your database reduces the space taken up by the data and optimizes their organization. Compacting should be used when you notice a decrease in performance or when you want to reduce the weight of your data. Compacting requires the server to be restarted. All users will be disconnected.
	6 minutes Restart server Restarting the server will disconnect all the users.
Next backup: Needed space: Available space:	15/05/2013 at 10:37 00/00/00 at 00:00 Start backup Preferences The server will not be restarted but the users will be blocked during the operation.
	second logged.     Start request log     View Report The server performance might be altered slightly during the generation of the request log. However, the analysis of this log will later permit the server to be optimized.

mSupply - ImSupply 4DC - 4D Server Ar

mSupply	- Database	Settings				_						
) General	) Interface	Compiler	û Database	贙 Moving	CC Backup	Client-server	WEB	SQL	PHP	Security	Compatibility	
Sche	duler Conf	iguration	Backup & R		ackup:	Every Day				•		
						20:00	]					
	Factory set	tings									Cancel	ОК

Configure content and destination of the backup:

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mSupply	- Database	Settings											
) General	Interface	Compiler	(a) Database	贙 Moving	C) Backup	Client-server	WEB	SQL SQL	PHP	Call Security	Compatibility		
Sched	luler Conf	iguration	Backup & R	estore									
C	ontent					Den Cile							
						🔽 Data File							
						Structure File							
						🔲 User Structu	re File						
				Attaci	hments:								^
													w
						Delete				Add fol	der	Add file.	
B	ackup File [	estination	Folder										
						"Server Data	base" in v	olume "C	:"		•		
				User	d Space:	92.84 GB			Free Spa	ace: 139.9	4 GB		
d	og Manage	ment											
						🛛 l lea Lea Elec							
	Use Log File:												
					*V0	:H_pharmacy_d	ata.journa	sl" in volu	me "C:"		•		
	actory sett	inas									Can	cel	OK

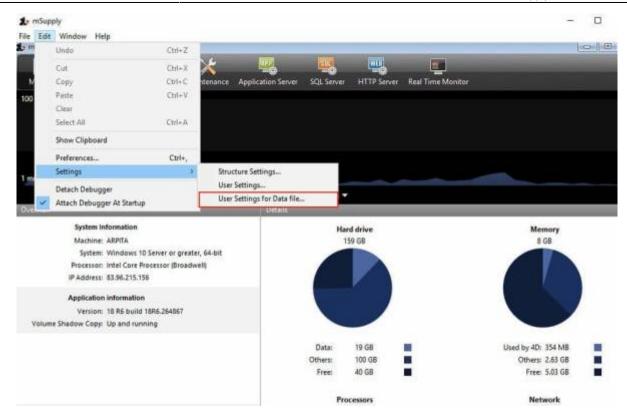
Backup & Restore: Decide how many backups to store in your destination folder. You may also set the system to retry backups if a backup is not possible at the scheduled date and time. Eg. if the system is not running.

mSupply - Database Settings	
🔀 🕎 🎯 🧰 🥡 🗊	Client-server Web SQL PHP Security Compatibility
Scheduler Configuration Backup & Restore General settings Delete oldest backup file If backup fails:	<ul> <li>Keep only the last backup files</li> <li>Backup only if the data file has been modified</li> <li>after backup</li> <li>Retry at the next scheduled date and time</li> <li>Retry after 60 Seconds</li> <li>Cancel the operation after 5 attempts</li> </ul>
Archive Segment Size (Mb): Compression Rate: Interlacing Rate: Redundancy Rate: Automatic Restore	Fast  None
Factory settings	Cancel OK

Backup and Memory settings - according to the datafile

The database backup settings were initially singular but since mSupply v4.14 we have extra options. On the server Settings menu we have the following options :

- Structure Settings... [This has been widely used]
- User Settings... [This is not frequently used]
- User Settings for Data file... [We are now actively using this options]



The "User Settings for Data file..." options saves the backup and memory options as a folder and is located next to the data file.

Name	Date modified	Туре	
Ja Logs	13/09/2021 13:13	File folder	
📕 Settings	13/09/2021 13:13	File folder	
🍌 temporary files	14/09/2021 06:08	File folder	
🍌 example data original 181210.zip	10/12/2018 08:10	Compressed (zipp	
🚔 MobileData.journal	14/09/2021 06:10	4D Journal File	
📑 MobileData.Match	14/09/2021 06:10	4D Structure info	
MobileData.4DIndx	14/09/2021 06:24	4D Data Indexes	
📑 MobileData.4DD	14/09/2021 07:40	4D Data File	

Above, note that the Settings folder is next to the mSupply data. This setup allows for the mSupply server to be upgraded with backup and memory settings intact.

#### **Application server**

Application server: The application server provides settings to manage the structure (.4DC file) and data (.4DD) files. It also provides information about LAN and system memory.

mSupply - [mSupply.4DC - 4D Se File Edit Window Help	nver Administration]	- 0
Monitor 🔮 Users (1) 🧔	🔉 Processes (23) 💦 💥 Maintenance 📲 Application Server 🖉 SQL Server 🖉 HTTP Server	
	State: Started	
	Starting time: 21/05/2013 at 12:18	
	Uptime: 6 minutes	
	Reject new connections	
Configuratio		
	Structure file: "mSupply:4DC" in volume "C:"	
	Data file: "VCH_pharmaqv_data.4dd" in volume "C:" Log file: VCH_pharmaqv_data.journal	
	roð mir acufhuanaðanana	
	Mode: Compiled	
	Launched as service: No	
	Listening to IP: 192.168.3.220	
	Port: 19813	
	SSL enabled: No	
Memory		
	Used cache memory: 11.71 MB	
	Total cache memory: 100 MB	
Maximum co	nnettions	
	Application Server: 4	

#### Web server

Web server: The Web server tab shows the web server status and running ports. The web server can be started or stopped form this tab.

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### When running the server as a service

When the mSupply server is running as a service you need to access the monitoring pages shown above in slightly different ways.

### 1. By logging into a client

For this, open a client and login to mSupply. Then choose *Special* > *Open mSupply server window* from the menus to see the server administration window open as described above.

Please note: to be able to do this, the user must have the *Access server administration* permission as described on the 25.15. Managing users page.

#### 2. By using a browser

To access the server administration pages from a browser, the mSupply webserver must be running (see the 19.02. mSupply web server page for details on how to turn it on).

Then open a browser and enter the mSupply server's URL followed by /admin/ini e.g. https://mymSupply.msupply.org:8048/admin/ini

A window like this will open in your browser:

🧐 4D Server Admin	=			
NAVIGATION				
⑦ Dashboard	1 / 52	ß	9 / 2500	
<b>£</b> \$ Users	Users		Cache memory (MB)	
OC Processes	-			
	🖴 Drive	99 G8	Memory	8 GB
Application Server				
SQL Server				
HTTP Server				
Real Time Monitor	Free	Data Others	Free Used	by 4D Others
	_			
	System information			
	Machine System Processor	DESKTOP-0388854 Windows 10 Pro 2009 (19042.1083) Intel(R) Core(TM) 15-1038NG7 CPU (0 2.0	OGH-	
	IP Address	Cores: 1 Threads: 1 10.0.2.15		
	Application information	1	License information	
	Version 4D v18 R6 (t	ou'ld 264867)	Name 4D Server OEM v18 Licensed to Craig Drown - Susta	

Use the tabs down the left hand side to navigate to the different pages which work very similarly to the pages described in the sections above.

### mSupply file extensions and types

This information is just for reference and to help your understanding.

On both Macintosh and Windows OS - five files.

- A structure file (.4DC suffix)
- A structure resource file (.rsr suffix)
- An executable file (.exe suffix)
- A data file (.4DD suffix)
- A data resource file (.4DR suffix)

### File arrangement

It is easiest to keep all relevant files in the same folder, in a reasonably accessible place on your hard drive. (For example, directly on your "C" drive.)

If you make copies, don't leave them in the same folder, or you'll just get confused!

There are several folders to store reports and queries that need to be in the same folder as your structure file. Note that these folders are automatically created when you unzip the program files the

first time. They are mentioned here so those of you with an inquisitive streak won't unknowingly do damage!

- A reports folder. This stores reports that are used by the program. Leave this folder alone- store your own reports in the custom reports folder.
- A custom reports folder. Store the reports you create here.
- A custom queries folder. Store the queries (searches) you create here.
- A custom labels folder. Store any label templates you create here.

Note that on Windows or Macintosh the run time application (that is, the database engine-"4Drun.exe" file on windows) can reside anywhere on your hard disk, and does not need to be regularly backed up (although you should have one backup copy somewhere!)

## Getting the right data file when you open mSupply

Important! If you open mSupply by double-clicking the "start mSupply" icon on the desktop (Mac users- by double-clicking the structure file), mSupply will try to open the same data file that was last opened. It will open the same file each time if you repeat the same procedure. If you make a copy, and then double-click the copy of the structure file, mSupply may still open using the data file from the original if it can find it.

To choose the data file manually do this:

Mac: hold down the option key as you click the OK button in the password window. You will then be given an open/save box to choose the correct data file.

Windows: Launch the program and then quickly hold down the Alt button until you see a box come up. It will give you an option to Select another data file.

If you are not sure which structure and data file you are currently using, on a pc logged into the correct datafile, choose about mSupply... from the help menu (Windows) or the apple menu (Mac).

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