



HandicapMaster®
<https://www.handicapmaster.org>

Backups White Paper

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2. Introduction

2.1. How Safe Is Your Data?

It is worth spending a few minutes to consider what would happen if something goes wrong. How much information and history would you lose if you were unable to access your HandicapMaster database?

Loss of the database could be caused by a number of problems, including:

- Infection of the PC by a virus or other malware, requiring a fresh installation of the system
- Damage or failure of the PC hardware, especially the disk
- Theft of the PC

How long will you be out of action if something does happen - hours, days, weeks? How much effort is going to be required to recreate the information, or manage the loss? What will be the cost or loss of revenue?

Having a safe backup of your HandicapMaster database will minimise the time it takes to get up and running again in the event of an issue. If you have a good backup, HandicapMaster Support are able to help and advise to get you going again as quickly as possible.

At the very least, the HandicapMaster database should be regularly backed up to a separate disk. This will give you protection against failure of the hard disk and probably against a “factory reset” as a result of malware. However, the disk does need to be a separate **physical** disk, not just another drive on the same disk!

An external USB disk, or even a USB memory stick, is a relatively cheap way to provide a backup location. With memory sticks in particular, these can be stored away from the PC, or even taken off site (adding protection against theft or damage).

We all hope that a catastrophe does not occur, but being prepared will minimise the impact.

2.2. Key Recommendations

Loss of the database can result in a lot of extra work and hassle. We strongly recommend:

- Performing regular backups of your database
- Keeping the backup (or a copy) away from the PC, preferably offsite
- From time to time, check the database can be restored from a backup

3. How does HandicapMaster help?

3.1. Society, Club, Premier, EGA-Club and EGA-Premier Editions

HandicapMaster takes a backup copy of the database as it starts. This is intended only for protection against database damage. If HandicapMaster is unable to open a damaged database, the option to recover from an earlier automatic backup is offered.

HandicapMaster also includes an ad-hoc backup facility, which creates a copy of the database, compresses it into a zip file and saves it in a specified location. To perform a backup, please use the following steps.

- 1) Start HandicapMaster and select FILE menu, then BACKUP DATABASE.
- 2) Click CHANGE FOLDER button and select a folder on your external drive (or USB stick). Click OK.
- 3) Click YES.

This will create a file called "HandicapMaster.bak" in the chosen folder.

If you wish, you can configure HandicapMaster to prompt you to do a backup every time that you exit the program. When you perform Step 1 above, there is an option "Remind to Back up on Close" at the bottom of the screen (above the Help button). If this is ticked, this screen will appear every time that you exit from HandicapMaster.

As an alternative to a backup to a local drive, we also offer an online backup service where the database backup is held on our server. The backup is started in a similar way.

- 1) Start HandicapMaster and select FILE menu, then BACKUP DATABASE.
- 2) Select the "Backup to Online Storage" tab.

The Online Backup Service requires a passcode, for which there is an annual subscription fee. This can be included as an additional item on the HandicapMaster renewal (except for Society Edition).

More details of this service can be found at:
<https://www.handicapmaster.org/products/onlinebackups.php>

If your club operates several HandicapMaster databases (e.g. separate Men's and Ladies' sections), a separate passcode is needed for each database. However, as with HandicapMaster, there is only one subscription charge for the club.

3.2. Network and EGA-Network Editions

HandicapMaster automatically triggers a backup of the database on the server every few days.

The database is backed up to a location on the database server, specified during the installation. Wherever possible, this location should be on a separate **physical** disk and the location should be included in the main server backup routines.

If you need to change the backup location, please contact HandicapMaster Support for assistance.

It is also possible to perform ad-hoc backups, as described above for Society, Club, Premier, EGA-Club and EGA-Premier Editions. These backups can be performed *on the server only*, to either a file or the Online Backup Service.

In an emergency, it is possible to perform an ad-hoc backup the database from any client PC to HandicapMaster Support. Please contact HandicapMaster Support for assistance.

3.3. Hosted Editions

The database is installed on the computers that are managed by Microsoft as part of their "Windows Azure" global network. This service is designed for high availability and resilience against hardware failures. As the data is offsite, it is also protected from a number of "local" risks, such as damage or theft of equipment.

In addition, the database is backed up daily by HandicapMaster Support to protect against database problems. Twice weekly, HandicapMaster Support also takes a copy of the backup files to protect against complete loss of the Microsoft Azure service (which would be a major incident!).

3.4. Is Publishing to Master Scoreboard Enough?

No. The information published is only a subset of the information contained in the HandicapMaster database. It is not sufficient to recreate the database structures.

If the HandicapMaster database is totally lost, the Handicap List published to Master Scoreboard might be the basis of a clean start. However, all the playing history would be lost.

In the event of a clean start, information should NOT be published to Master Scoreboard until such times as all useful information has been printed or re-entered. Publishing to Master Scoreboard writes a fresh copy of all the details, so the previous history would be lost.

3.5. Risks and Mitigation

The following table identifies the common classes of risk to the HandicapMaster database and suggests ways to mitigate the risk.

Risk	Mitigation		
	Society, Club, Premier, EGA Club, EGA Premier Editions	Network, EGA Network Editions (Server PC)	Hosted Editions
Database corruption or damage	Automatic or ad-hoc backups	Automatic or ad-hoc backups	Daily backup
Virus or malware requiring PC reset	Ad-hoc backups held on separate disk, USB stick or Online Backup Service If possible, perform ad-hoc backup before resetting PC, to minimise data loss	<ul style="list-style-type: none"> Automatic backups if held on a separate disk or recovered from server system backup. Ad-hoc backups held on separate disk, USB stick or Online Backup Service. If possible, perform ad-hoc backup before resetting PC, to minimise data loss. Emergency backup to Online Backup Service (especially if it is not possible to log on to the server itself). Please contact HandicapMaster Support for assistance. 	Not applicable - data is offsite
Disk failure	Ad-hoc backups held on separate disk, USB stick or Online Backup Service	<ul style="list-style-type: none"> Automatic backups if held on a separate disk or recovered from server system backup. Ad-hoc backups held on separate disk, USB stick or Online Backup Service 	Not applicable - data is offsite

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Risk	Mitigation		
	Society, Club, Premier, EGA Club, EGA Premier Editions	Network, EGA Network Editions (Server PC)	Hosted Editions
Loss or theft of PC	Ad-hoc backups held on USB stick or Online Backup Service	<ul style="list-style-type: none"> • Automatic backups recovered from server system backup. • Ad-hoc backups held on USB stick or Online Backup Service 	Not applicable - data is offsite
Loss of, or exclusion from, club premises (e.g. fire, flood, structural damage)	Ad-hoc backups held on USB stick (if held offsite) or Online Backup Service	<ul style="list-style-type: none"> • Automatic backups recovered from server system backup (if backup held offsite) • Ad-hoc backups held on USB stick (if held offsite) or Online Backup Service 	Not applicable - data is offsite