



The Passionato Guide to Digital

The Passionato Digital Guide

Welcome to the world of digital music! Whether you are a novice or a more advanced user, this guide will help you to explore the unique opportunities “going digital” offers the Classical music enthusiast. As you start to build your digital library, either by encoding your existing CDs or through purchases made from download stores like Passionato, you will be able to explore your music collection as never before, with instant access to favourite recordings, the ability to search for particular artists or performances at the touch of a button, create customized playlists, or compare different recordings of a particular work.

Moreover, digital music formats can now offer the same audio quality as you can get from a CD, and you can even get digital version of the CD booklets for an increasing number of albums, so there is nothing to lose and a great deal to gain by going digital.

The Digital Options – File Formats: What do I choose?

Until relatively recently going digital meant making sacrifices in terms of sound quality. This is no longer the case, in fact some digital formats actually offer better sound quality than CD. We have created a separate guide to many of the most popular digital formats which you can find [here](#).

Essentially there are two kinds of digital file you can adopt when purchasing digital music downloads or encoding (“ripping”) your own CDs: lossy and lossless. Both require less computer storage space than a CD copied in its native file format (WAV). Lossless formats, like FLAC, that Passionato uses, are genuinely lossless – the digital files are smaller but there is no loss of audio quality: FLAC files sound exactly the same as the original CD. The fact that FLAC files are smaller than WAV files (about half the size in fact) is due to the technical differences between the files.

On the other hand “lossy” formats like MP3 do offer the user a trade-off between smaller file sizes and lower sound quality. For portable devices, like the iPod, with limited storage space these more compressed formats enable the user to store far more music. For listening at home there is less reason to compromise, especially since storage is now relatively cheap. A 1TB (1 terrabyte – equal to 1,000 GB) computer hard drive costing £50-£100 could store around 3,000 albums in FLAC with no loss in sound quality. Using a lossless format like FLAC also gives the user the option to re-encode their files to a smaller file format for use on the move. An album encoded at 320k MP3 would take up about 130mb of storage space, the same album in FLAC about 350mb.

Although it can’t quite match FLAC in terms of sound quality, MP3 at its best comes very close. In fact MP3, like other so-called “lossy” formats, comes in various forms. The user can choose the compression rate (the “bitrate”) when ripping a CD: the lower the bitrate the lower the quality, but the smaller the file size. At its best, 320k, many users would not be able to distinguish the difference from a CD – which is why Passionato has adopted 320k MP3 as our MP3 format. MP3 is also the most widely adopted digital format – compatible with portable devices like the iPod, PC/MAC media players and streaming devices (more on that later).

So, if you are particular about sound quality and not concerned about the larger storage requirements, FLAC is the best option, otherwise MP3 at 320k will give you the best of both worlds.

The Digital Advantage – Why go digital?

Been collecting CDs for years? So why change? Well, if you have a CD library of any significant size you've probably found that many recordings get overlooked, are rarely played or are simply difficult to find – especially if you are after that piece of music buried on some larger collection somewhere. That's where a digital library really comes into it's own.

Digital files all contain what is known as metadata – recording information that ranges from simple title and artist information to details of period, genre, type, or even specialist data like recording date, location, who the producer was etc. So finding a particular recording by a specific artist, or comparing different recordings of the same work, can be done almost instantaneously using the search facility in a good media player, like MediaMonkey, for example. We have a more detailed guide to how you can get the most out of a digital collection using MediaMonkey here:

[Click Here...](#)

This metadata is usually embedded in the music file itself in what is known as an ID3 tag, or kept in extra fields of data that can be accessed in the media player on your PC/MAC. The essential title and artist info is usually kept in the ID3 tags, which is great, because it means that wherever you play that file – be it an iPod or media player, that data will be displayed.

If you are particular about what information you hold about your recordings you can add extra data in one of the many data fields available via a good media player like MediaMonkey, so you could catalogue your recordings by genre or period, for example, making it easy to search for all your baroque opera recordings, for instance.

So, by going digital you don't sacrifice sound quality (if you use FLAC), and your music collection will be much easier to access with the benefits of the detailed recording information you can save with your music files (including the sleeve image, by the way)

Having a Ripping time? – Converting your CDs to digital

“But my CDs are digital already aren't they?” Yes and no. They are in a digital format, but to transfer them to a format that makes the most of having a digital library they need to be encoded (“ripped”) into FLAC, MP3, or whatever format you choose.

Most media players can do this, though some do not support all formats. In all cases the players will rip your CDs and also populate the ID3 tags with the basic metadata. The quality of that metadata can vary enormously, particularly for classical. This is partly due to the fact that there are several databases used by different players, each with varying levels of accuracy and detail. The main ones are freedb (used by MediaMonkey and many “independent” players) and Gracenote (used by iTunes). You may find that you might want to refine & edit some of the data they provide (more on that later).

It is one of the best rippers around. Moreover, if you happen to have a PC with more than one CD-drive it is capable to batch-ripping CDs: ripping multiple CDs simultaneously - ideal if you have a large CD collection to encode. Although it is not free it still represents excellent value for money, since it not only offers the best selection of metadata, but also one of the most configurable ripping engines that allows you to specify the way the encoded files are stored (folder & file names etc). It will also rip into a wide variety of file formats & even batch convert files from one format to another.

So, you can use a program like dbpoweramp or Mediamonkey to rip your CDs into your preferred format – and both of these applications will encode both FLAC and MP3. As mentioned earlier if you are at all serious about sound quality we recommend that you select a lossless format like FLAC. If you then choose to listen to music on the move you can Copy/convert your FLAC files to a smaller file format such as lower bitrate MP3 for use on an iPod, for example. In fact, MediaMonkey includes an extremely useful facility (in the Gold version) that will automatically detect what type of file you have and convert it to a specific format when uploading to a portable device – so you could keep all your files in FLAC and MediaMonkey would convert them to 320k MP3, for example, when uploading to an iPod. Your FLAC files remain unchanged, by the way! For more details on this and many other features in our recommended player, MediaMonkey, please see our Passionato MediaMonkey Guide.

[Click Here...](#)

Hundreds of CDs to encode? – a simple solution...

If you would like to convert your CD collection to digital but simply have too many to do manually there are a number of companies that specialize in encoding complete collections for you. To find out more try one of these companies, they all offer a comprehensive service, special



<http://www.podserve.co.uk/index.htm>



<https://www.ripcaster.co.uk/node/6>

In the U.S.



<http://www.readytoplay.com/default.asp>

What about my treasured LPs?

Many of you probably have LPs that you would like to access through your digital library. The good news is that not only can these records be converted to digital, but you can also improve them in the process as well! Although the historical labels that specialize in issuing recordings from LP and 78 on CD use very sophisticated technology it is actually fairly easy to get excellent results from quite simple and inexpensive software that can give your vinyl collection a whole new lease of life.

There are companies that will do this for you, but, because vinyl re-mastering is a more involved process than ripping a CD they are usually very expensive. The best solution is to either record direct from a special USB turntable that connects direct to your PC, or use a more dedicated audio restoration program that records from your existing hi-fi set-up.

Solution 1: USB Turntable connected to your PC

The simplest solution, very much “plug-n-play” – here’s a good example:-



It can be found at amazon:-

USB-Plattenspieler ION Audio ITTUSB05

[Click Here...](#)



In the U.S.

It can be found at amazon:-

Audio Technica AT-LP2D-USB

[Click Here...](#)

Solution 2: Connect your Hi-Fi to your PC

The best solution in terms of quality and flexibility would be to connect your existing hi-fi to your PC directly and use a bespoke program to clean up your LP recordings.



The Xitel INPORT is an excellent and cost-effective device that takes the signal from your amplifier and feeds it into a USB port on your PC – delivering an excellent quality transfer. You could also use it to transfer tapes as well. It can be found at amazon here:-

XITEL INPORT at Amazon.co.uk

[Click Here...](#)

XITEL INPORT at Amazon.com

[Click Here...](#)

Once transferred, we would recommend using the Magix Audio Cleaning Lab. It is a very versatile program that can really work wonders on cleaning up old recordings with very little effort. For further details click the link below:-



Magix Audio Cleaning Lab

The Digital Listening Experience – free your music from your PC!

So, you've got your music encoded into the format of your choice, what next? Well, going digital is not about just sitting in front of inferior PC speakers listening at your computer. You can, of course, listen to your music via your PC using a player like MediaMonkey, and there are many high quality computer speaker packages available to make it a very agreeable experience – or you could feed the output from your PC sound card to your hi-fi if they are close enough.

However, by far the best solution, though, is to “stream” your digital files into your living room to play back via your hi-fi. Basically, your files stay on your PC or hard drive and are accessed remotely from a network music player that connects to your hi-fi – either via a network cable, or wirelessly. Using a network music player you can browse through your collection, playlists etc from the comfort of your armchair, and without the noise of a PC humming in the background either.

There are many solutions of this kind, but the best are the Squeezebox family of players:-



“...the Squeezebox is a terrific piece of kit...” (James Jolly, **Gramophone**)

[Squeezebox - how it works](#)

[Squeezebox Players](#)

Or the Sonos system:-



[Click Here...](#)

Both are excellent systems that will really help to liberate your music collections from the confines of your computer, streaming music in the highest quality formats like FLAC, with no loss in sound quality, but a huge advance in convenience over browsing through hundreds of CDs on the shelf. Incidentally, both of these systems offer iPhone apps that enable you to use your iPhone as a wireless remote control to browse your digital music collection as well!

The “one-box” solution

There are also a number of one-box solutions that make setting up a digital system much easier. The Naim Uniti, for example, combines many units into one – a streamer, a DAB radio, a CD player an amplifier and an iPod dock.

“NaimUniti smart system takes music way beyond the “all in one” norm.” (Gramophone)



Naim Uniti

[Click Here...](#)

The Naim Uniti doesn't include a hard drive, but there are units available that will automatically rip your CDs as you feed them in, such as the AVA RS3 Music Server, which would complement the Naim unit very well:-



AVA RS3 Music Server

[Click Here...](#)

“Easy to use, silent in operation and blessed with considerable capacity: an ideal music source for any decent media player. Verdict “Very Impressive: it might seem expensive, but for user-friendliness and effectiveness it’s perfectly judged.” (What Hi-Fi)

The portable alternative

Alternatively, if you have an iPod you could connect your iPod to your hi-fi directly using one of the docking stations that you can buy, or even just using an audio cable that connects to the headphone output on the iPod itself.

For a more permanent solution there is a dedicated docking station with its own speakers, of which the Bose range is among the best:-



[Click Here...](#)

Digital Storage – the best way to store and protect your digital library

Once you have got a significant digital library you need to ensure you can access it easily and preserve it. Digital files are not as delicate as LPs used to be, but you still need to protect them. This means backing up your collection – quite simply, always keep a copy of your files.

Modern computer hard drives are extremely reliable, but, as with any electrical equipment, they can fail. But don't worry, it is simply a question of keeping a copy of your files safe, in the same way you should for any documents on your PC. There are plenty of solutions here, such as external hard drives that connect to your PC like this highly regarded drive from lomega:-



[Click Here...](#)

Such an external drive is probably the simplest solution to backing up your data – and has the advantage that you can keep the drive separate from your main files for extra security. These external hard drives are available in a wide range of capacities, and even come in “pocket” sized format.

Network Storage – switch that PC off and enjoy the music!

Nowadays you don't even have to keep the PC switched on to enjoy your digital music files. Using a NAS device – Network Attached Storage, and a streaming system like the Squeezebox or Sonos you can access your digital library even when the PC is switched off.

NAS devices connect to your PC network via your home network, so can be placed anywhere convenient that you can run a network cable to. There is now a vast choice of such devices, but for those with a larger collection there are NAS devices that can take several hard drives, offering substantial storage capacity, and also protection in case a drive fails (basically a form of internal backup that means if one drive fails you don't lose your data). The best of these NAS units also include media serving software – which removes the need to have a PC switched on to stream your music files. Having your files located on a NAS device also means that if you have multiple PCs in your household connected via a home network they can all access the files stored on the NAS device.

One of the best such NAS devices is the ReadyNAS range from Netgear, which includes built-in software to support direct streaming to the Squeezebox.



[Click Here...](#)

Managing Metadata – how to get the best from your digital catalogue

If you are not completely new to digital you'll probably have some digital files that you have ripped previously, which for Classical will tend to mean that your metadata – the title/artist information – is not ideal if you used some of the popular media players to rip your CDs. Some of the more fastidious users may well have opted to re-type all the metadata themselves, to ensure that they get all the information they want.

A note about Metadata Styles

There is no one “correct” format for creating Classical metadata, which is one reason why there are so many variations in different media players and websites.

Just ask yourself a few simple questions about how you might like to view your recording information:-

Which is “correct”?

- “Mozart: Piano Concerto No. 21” or “Mozart: Concerto for Piano and Orchestra No. 21”?
- “The Magic Flute” or “Die Zauberflöte”
- “The Rite of Spring” or “Le Sacre du Printemps”
- Artist Surnames or full names?
- Key signatures in English or the original language?
- Precise punctuation (eg No. 21) or a shortened version to save space (eg No21)?
- Movement numbers in arabic or roman numerals? (eg 1, i, I)

Identifying Classical Works

Also, there is the question of how Classical works are displayed. With the ID3 tag structure there are fields for Album and Track, but not work, so do you use the album name or use the album field for the work name and dispense with the album title altogether? For many Classical users this is the logical approach, so that all your recordings will be displayed as works rather albums.

Similarly, for track title for many users it is logical to name a track with the full work name as well as the track title, so that when viewing a track playing on an MP3 player or streaming device it is easy to see what you are listening to:-

After all seeing “I: Allegro maestoso” would not mean much, but seeing “Chopin: Piano Concerto No. 1 – I: Allegro maestoso” would make much more sense.

Then there is the question of whether a user wants to use abbreviations to make the data more easily viewable on small screens on portable media players like the iPod – such as artists (eg LPO for London Philharmonic Orchestra)

The possible variants are endless, and if the data comes from different sources, sorting your library can produce very inconsistent results. This was the main reason why Passionato opted to use AMG data in the store, so that everything is displayed consistently.

For more information on options for displaying Classical metadata there is an interesting article on the MusicBrainz site:-

http://musicbrainz.org/doc/Classical_Style_Guide

Editing and Correcting Metadata – an advanced user's guide

Everyone has their own preferred format for metadata – certainly if you have particular preferences for how Opus Numbers, Key Signatures etc are displayed you may want to edit your own metadata. But even if the metadata in your existing files is not ideal, you do not necessarily have to manually retype it all again.

There are some programs that allow you to look-up data from other sources and update your own metadata. Mediamonkey, for example, will allow you to search amazon and import their metadata for a selected album. (please see our MediaMonkey Guide for details)

Alternatively, you could use an ID3 Tag editor. Most media players like MediaMonkey allow you to edit metadata directly, and even update multiple fields of data in one go.

A dedicated ID3 Tag editor will also give you the power to edit the data you have in much greater detail. One of the best around is MP3Tag – which is free:-



[Click Here...](#)

MP3 Tag is a very powerful program that may take a little getting used to, and is probably not for PC novices, but it will enable you to do things like find & replace in your data, and also change the format of groups of data by setting various rules.

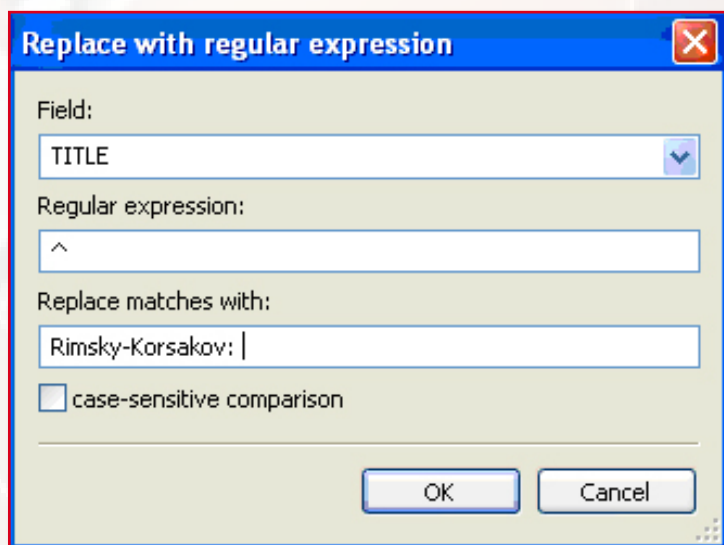
So, for example, if you preferred to replace all references to “London Philharmonic Orchestra” with “LPO”, even if it appeared within a longer artist title field, the program could find & replace that term in a similar way to using MS Word or Excel.

It also allows you to build up rules that can be run to correct certain types of data recurring in files, such as altering punctuation etc.

One common requirement might be to add the composer and work to a track title. This can be done easily for a selected group of titles by using a variation on the Replace function using a system called Regular Expressions. So for example one could change this:-

Scheherazade Op. 35 - I: The Sea and Sinbad's Ship
Scheherazade Op. 35 - II: The Kalender Prince
Scheherazade Op. 35 - III: The Young Prince and the Young Princess
Scheherazade Op. 35 - IV: Festival at Baghdad - The Sea (FLAC)
Tale of Tsar Saltan Op. 57 - I: The Tsar's Farewell and Departure
Tale of Tsar Saltan Op. 57 - II: The Tsarina in a Barrel at Sea
Tale of Tsar Saltan Op. 57 - III: The Three Wonders

Using this dialog:-



To this:-

Rimsky-Korsakov: Scheherazade Op. 35 - I: The Sea and Sinbad's Ship
Rimsky-Korsakov: Scheherazade Op. 35 - II: The Kalender Prince
Rimsky-Korsakov: Scheherazade Op. 35 - III: The Young Prince and the Young Princess
Rimsky-Korsakov: Scheherazade Op. 35 - IV: Festival at Baghdad - The Sea (FLAC)
Rimsky-Korsakov: Tale of Tsar Saltan Op. 57 - I: The Tsar's Farewell and Departure
Rimsky-Korsakov: Tale of Tsar Saltan Op. 57 - II: The Tsarina in a Barrel at Sea
Rimsky-Korsakov: Tale of Tsar Saltan Op. 57 - III: The Three Wonders

... inserting the composer name in the track title field at the start of the existing title field (that is what the ^ character does)

These are just a few simple examples of what a program like MP3Tag can do. It can prove to be a very useful way to improve your metadata without having to manually re-type it all in, and is well worth exploring if you have a lot of media files that need their metadata harmonizing.

And finally...

We hope that you have found this guide useful, and that it has highlighted some of the ways in which you can really make a digital music collection work for you. With a relatively simple combination of equipment and software exploring your music collection can become easier than ever. In fact one of the greatest joys of "going digital" is that it enables you to rediscover recordings you had maybe forgotten you even had, as well as hopefully explore an ever increasing catalogue of recordings that are now only available digitally. Happy listening!