Introduction

The latest Meridian Sooloos software upgrade, Sooloos 2.1, introduces a significant set of new features. In addition, some capabilities that existed in previous versions have been updated, simplified or have additional functionality.

Inevitably, there are some changes in the way some features are accessed or used. This document covers these as well as providing information that will help you get the best out of the new features.

1. Zone Linking and Multicast

Our Zone Linking feature takes advantage of **IP Multicast** technology to distribute audio to multiple zones efficiently.

Normally when you stream audio from a server, the player (such as a Source component or a Sooloos Card in an 800 Series product) establishes a one-to-one connection with the server to deliver the audio. This is called 'Unicast'. If more than one player requests the same material, an additional unique stream has to be created between the server and the player. This increases the bandwidth requirements, and can ultimately lead to issues including buffering problems and loss of playback, especially in larger systems – and it's not efficient.

A better way to stream the same music in sync to multiple zones is to use 'Multicast', and this is how the new Zone Linking feature works. With Multicast, each player notifies the server that they wish to listen, and the server tells the player to look for data that's unique to the selected stream. All the players listen for the same identifier and the network delivers the same data to all of them – it's a bit like tuning in to digital radio. Multicast can improve bandwidth throughput and helps to maximise audio quality and reliability.

We have found that some wireless routers have difficulty operating in the presence of even low-bandwidth Multicast streams, while other routers handle it correctly. Our tests have shown that some dual-band (2.4/5GHz) 802.11n WiFi routers work fine, but others do not. Some routers allow you to configure a setting called 'Multicast Rate'. This often defaults to 'low', but if set to a higher value, potential problems are avoided.

Obviously there are so many routers on the market that it's impossible to provide an exhaustive list of those that may work. In addition, we are not currently aware of a reliable way of identifying in advance whether a given router will work or not. However, here are some models that we have been able to test to date and verify as suitable:

Apple Airport Extreme   D-Link DIR-825
Apple Time Capsule   Linksys WRT400N
Buffalo WZR-HP-G300NH   Netgear WNDR3700

If you encounter networking performance problems when linking zones, the simplest solution is to try a different router, and we suggest you choose one from the list.

2. Leaving components powered on

Meridian Sooloos components feature advanced distributed processing, which means they share tasks between devices. For optimal performance, all the components in your system need to be powered up while you are actively using it.

In addition, certain operations – such as generating audio files in Export Format for synchronisation to portable devices – happen while the system is *not* in active use. Particularly after importing a large quantity of music, it may be best to leave your system powered on until these operations are completed.

3. Exporting music

Sooloos 2.0 featured a file export system which created a 'virtual' drive on your Macintosh ('Sooloos' volume) and Windows PC ('S:' drive). MP3s on the system could be browsed from the computer, and imported into iTunes either as 'copied' or 'linked' files. Following extensive user feedback, a more flexible and reliable mechanism for Export has been implemented in Sooloos 2.1, replacing the previous method.

With Sooloos 2.1, you can create one or more 'Export Destinations' using Control:Mac and Control:PC. An Export Destination can be configured to export in one of three formats:

- A folder of 'Native Format' files (FLAC for CD imports, or the original file format of any files you have imported);
- A folder of 'Export Format' files, which are MP3 or AAC depending on the configuration you have specified in 'System Settings';
- Direct export to your iTunes Library in 'Export Format'

You may choose to export all your albums and playlists to an Export Destination, or you can select individual tracks, albums, and playlists to export using the Control 10, Control:Mac, or Control:PC.

Because the virtual Volume system used previously has been superseded, you will need to re-export your files following your upgrade to Sooloos 2.1.