

WEISS HIGH-END AUDIO

# MAN301 Operating Manual



V 1.0.9

## CHAPTER 1

# Welcome and first steps



Congratulations on the purchase of the MAN301! I am sure you will enjoy the ergonomics and sonic quality of the Weiss MAN301 Music Archive Network player system. It can be easily tailored to your exact needs. This operating manual guides you through the setup and operation of the MAN301 on a step by step basis. Enjoy! Daniel Weiss, President, Weiss Engineering Ltd.

# System features and requirements

**Note:** Many of the words in bold typeface lead to a glossary entry when tapped.

The MAN301 system consist of the following items:

- the **MAN301 Base Station** (called MAN301 in this manual),
- an iPad with iOS 5.0 or higher with the free „Weiss MAN“ app (available from the Apple app store),
- a storage device preferably a NAS unit (Network Attached Storage) for the storage of the music files. Or alternatively a USB drive.
- A quick start guide
- This manual, as an **iBooks** book

The MAN301 can be operated in two modes, one is the „normal“ playback mode where music is played from a storage device. The other mode is the Pre-amplifier mode which is described in section 5 of this chapter.

The MAN301 itself does not have any internal storage facility for music files. Ad hoc storage devices (e.g. the memory stick brought by your guests) can be plugged into the USB port of the MAN301 for immediate playback.

The MAN301 fetches the music files from the NAS (many formats

supported) and feeds the data to the built-in D/A converter (option) and also to the digital output interfaces (AES/EBU, S/PDIF, USB, FireWire). In addition external digital audio signals can be fed to the MAN301 for playback via the built-in D/A converter. The MAN301 has a volume control built in (which even works for external digital sources) and thus can be directly connected to a power amplifier or active speakers.

The „Weiss MAN“ iPad app is used to control the MAN301. The features include:

- playback of a plethora of **audio formats**
- maintaining the **music library**
- ripping of CDs in a variety of formats
- editing of CD meta data (artist names, album names etc.)
- fetching of CD **artwork**
- generating and maintaining **playlists**
- listening to Internet radio stations
- searching the music library according to various criteria
- supporting several **users**, each with individual playlists etc.
- supporting several NAS units

- supporting several MAN301 units

The NAS unit is used to store the music files, cover artwork files and more, like e.g. accompanying text files.

The playlists generated are stored within the MAN301 unit. The iPad itself is not used for any storage. Thus it is easily possible to use any iPad with the Weiss MAN app installed and control a MAN301 system right away.

### **Using the MAN301 as a CD Player only**

Maybe you have bought the MAN301 just for high quality CD playback with no intention (yet) to use its capabilities as a network player.

In that case the setup is fairly simple: Connect the iPad directly to the WiFi of the MAN301, no need to connect the MAN301 to a network (except you would like to see CD track information the MAN301 gets from the Internet), no need to connect a NAS storage unit. Just read these sections of this manual:

Chapter 1, Section 2, Configuration 6

Chapter 4, Section 1

### **The frontpanel LED and power switch operation**

The LED on the MAN301's front panel is a three color LED which shows the following:

- After switching on the unit via the power switch the LED lights blue and stays like this throughout the operation
- After switching off the unit via the power switch the LED flashes green and eventually turns off. During the green flashing phase the MAN301 is closed down. During that phase the mains supply to the MAN301 must not be interrupted.
- If the MAN301 has crashed, i.e. is not responsive to any commands anymore, even the green LED does not stop flashing when trying to switch off the unit. In this case the unit can be forced to switch off by pressing and holding the power switch for a few seconds. During that phase the LED flashes green and red and eventually will turn off. The MAN301 then also is turned off.

The next page shows the content of the Quick Start guide, in case it has been lost:

# MAN301 quick start guide



## Congratulations on purchasing the MAN301 Music Archive Network Player!

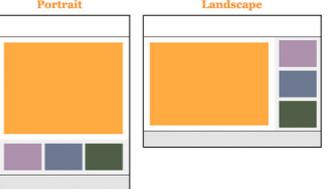
Here are the first steps to set up the MAN301 system.  
The MAN301 manual mentioned below is **absolutely essential reading**.

<p>1.) Download the free iBooks app from the Apple app store to your iPad. Tapping on the App Store icon connects the iPad to the app store. Search for iBooks to find the appropriate app quickly. Note, you need to have an app store account in order to access the apps. This is the case even if you do only get free apps.</p>	
<p>2.) Download the free Weiss MAN app from the Apple app store to your iPad.</p>	
<p>3.) Download the MAN301 manual from this link: <a href="http://www.weiss.ch/downloads/man301/WeissMAN.ibooks">http://www.weiss.ch/downloads/man301/WeissMAN.ibooks</a> with the help of the Safari browser on your iPad. Open it in the iBooks app. Note, the download will not work if the iBooks app is not installed.</p> <p>Alternatively you may download the PDF version of the manual from this link: <a href="http://www.weiss.ch/downloads/man301/WeissMAN.pdf">http://www.weiss.ch/downloads/man301/WeissMAN.pdf</a></p>	
<p>4.) Setting up the MAN301 hardware</p> <p>Carefully unpack the MAN301 unit. The following items should be included:</p> <ul style="list-style-type: none"> <li>- The MAN301 unit</li> <li>- This quick start guide with a warranty card</li> <li>- The WiFi antenna</li> </ul> <p>After unpacking the MAN301, screw on the antenna onto the appropriate socket on the back of the unit. The antenna can be rotated to the position you like best. Usually it is not critical in terms of signal reception.</p> <p><b>Mains power on / off switching</b></p> <p>The MAN301 will automatically accommodate for the mains voltage, so there is no mains voltage selector to set. The fuse rating is the same for all mains voltages. To switch on power to the MAN301 press the "on" switch on the front panel. The blue LED will light. After about a minute or so the MAN301 has booted and is ready to connect to the iPad and the NAS.</p>	 

The MAN301 can be switched off from within the iPad app or via the power switch on the front panel. If switched off from the front panel, the LED turns green and starts to flash until the MAN301 has shut down and switches off itself. If the green LED does not stop flashing for more than 30 seconds or so you may force a power down by pressing and holding the power switch (LED toggles between red and green) until the LED goes off.

**Please work through Chapter 1 of the manual. This is essential to set up the system correctly. Do not attempt to set it up in a "trial and error" manner. Also work through the other chapters of the manual.**

### Some notes on the iPad:

<p>In iBooks it is easy to get back to the contents list with the help of the pinch gesture:</p>	
<p>The Weiss MAN app is designed for the Portrait mode of the iPad display. Thus when the Weiss MAN app is started, the iPad display is automatically rotated to Portrait mode. The iBooks manual on the other hand is written in Landscape mode and thus the iPad display is automatically rotated to Landscape mode when the manual in the iBooks app is started. These rotations work independently of the "Lock Rotation" switch setting of the iPad.</p>	
<p>When putting the iPad in standby mode (with the switch in the upper right corner) then the connection to the MAN301 is maintained for about 10 minutes. Thus when re-activating the iPad again within 10 minutes, the connection to the MAN301 is active immediately. If re-activation of the iPad happens after more than 10 minutes (or if the iPad has been switched off completely) one has to tap on the Weiss MAN app and select the server. After that the currently logged in user is automatically logged in again. The music continues to play in any case.</p> <p>The automatic standby mode of the iPad can be switched off in settings / General / Auto-Lock.</p>	<p>Standby switch</p>    <p><b>General</b></p>
<p>Double click on the home button allows to switch between tasks quickly. It also is a short cut to the brightness control.</p>	<p>Home button at the bottom</p> 

# System architectures

There are a few different MAN301 **system configurations** possible. Which one is preferred depends on your existing computer and Internet setup or the setup you would like to implement. An Internet connection is recommended / required if:

- CDs are going to be ripped via the MAN301
- You would like to do maintenance on existing CD **meta data**
- The iPad and/or the MAN301 software should be updated

Basically an Internet connection is highly recommended. Of the configurations on the following pages, configuration 1 may be the most common, but others work equally well. In terms of sonic performance there isn't any configuration preferred over the other ones.

**WiFi:** This denotes a wireless network connection

**Ethernet:** This denotes a wired network connection

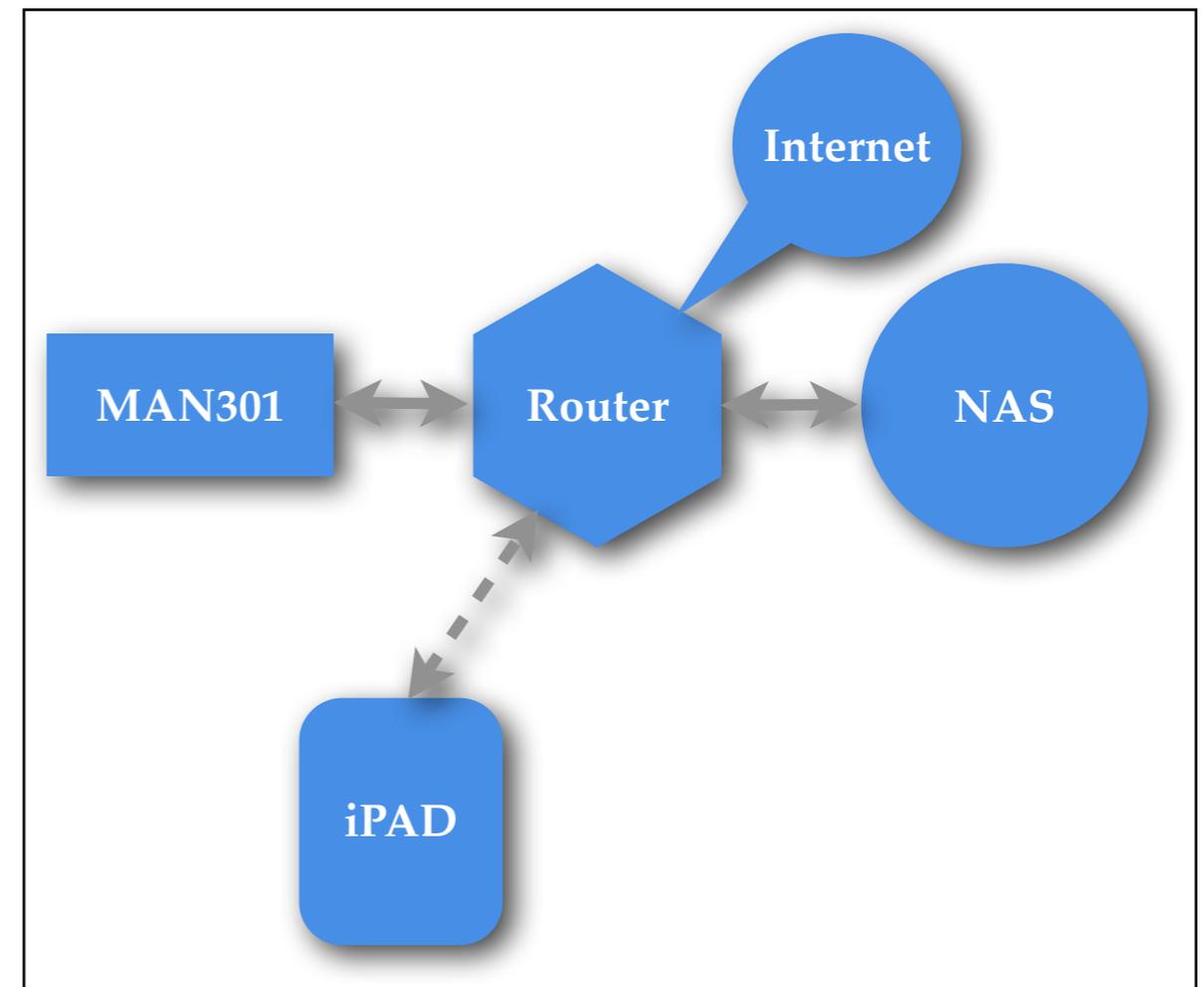
**Select your preferred configuration from the following pages.**

Typical system configurations are:

( Ethernet link:  WiFi link:  )

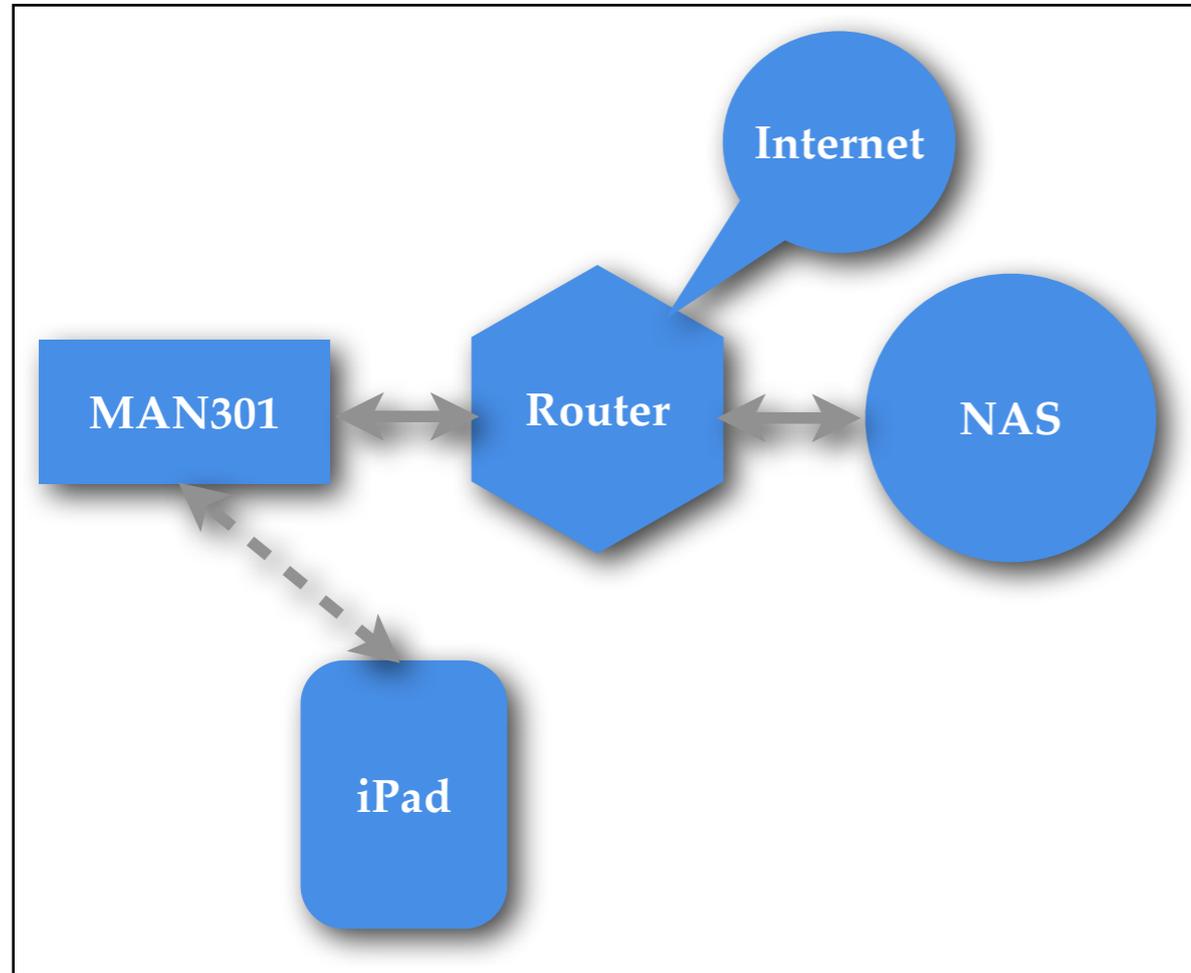
## Configuration 1:

You use a WiFi **Router** with Internet access. The iPad is connected to the WiFi Router: **Proceed to Section 3.**



**Configuration 2:**

You have a Router with Internet access, but no WiFi. The iPad is connected to the MAN301's access point: **Proceed to Section 4.**

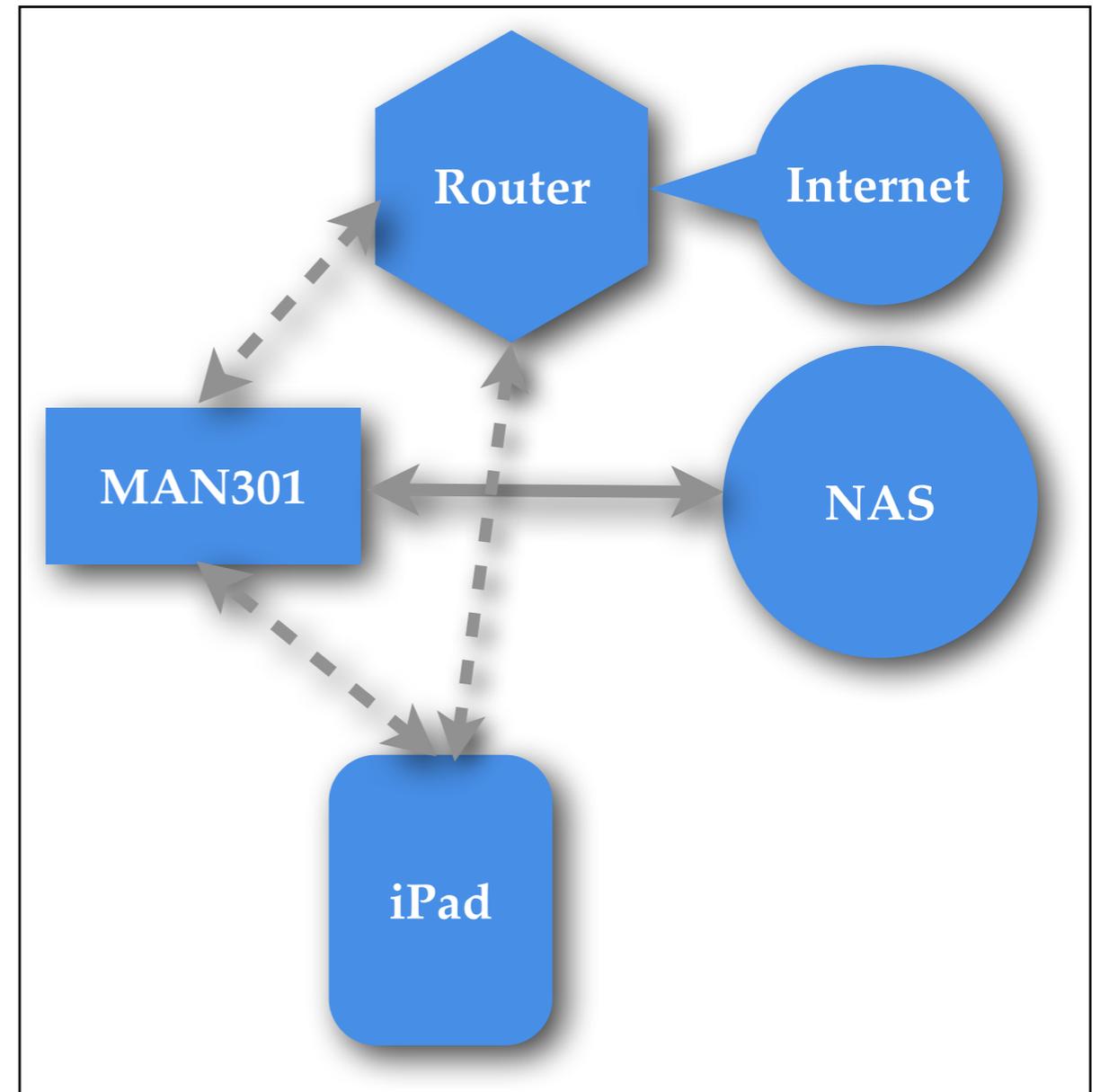


**Configuration 3:**

You do not have any (WiFi) Router but you have got Internet access:  
In this case add a Router (or a WiFi Router) to your system to get a configuration as in Configuration 1 or Configuration 2 above.

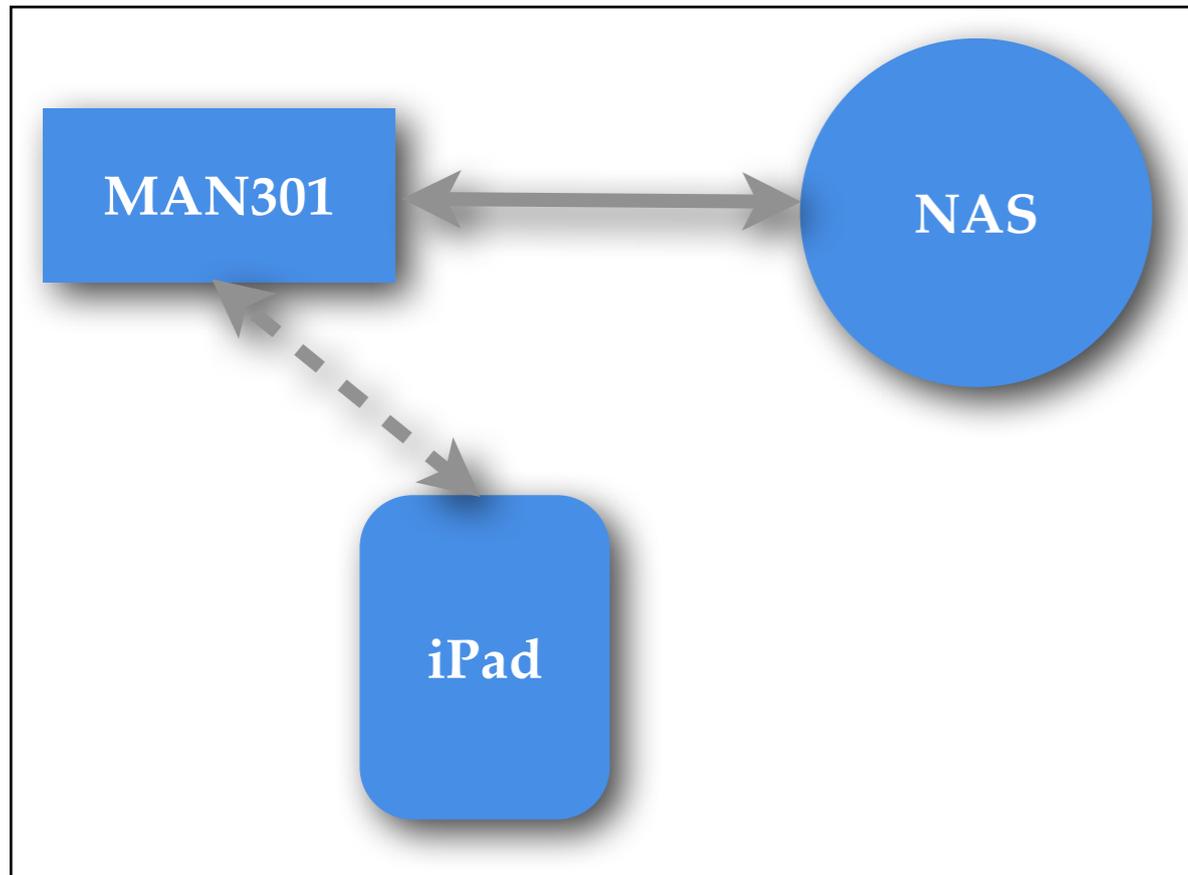
**Configuration 4:**

You have a WiFi Router with Internet access, but you would not like to connect the MAN301 system via Ethernet to the Router, but rather via a WiFi connection. The iPad is connected to the MAN301's access point (or to the WiFi Router) and the MAN301's uplink is connected to the WiFi Router: **Proceed to Section 5.**



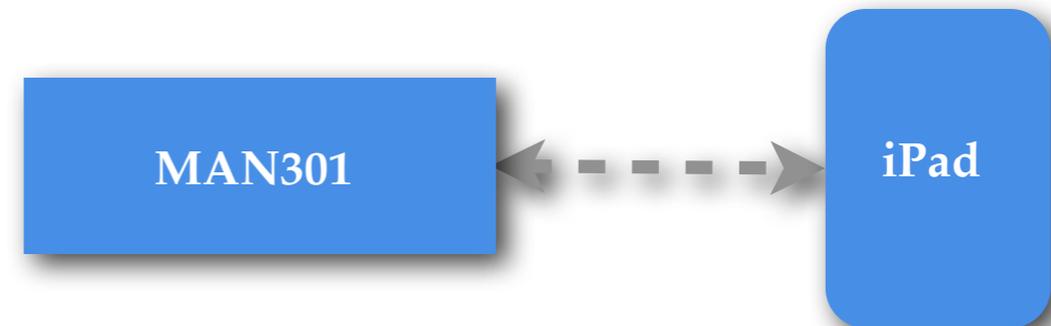
**Configuration 5:**

You do not have any Router or Internet access:  
Proceed to Section 6.



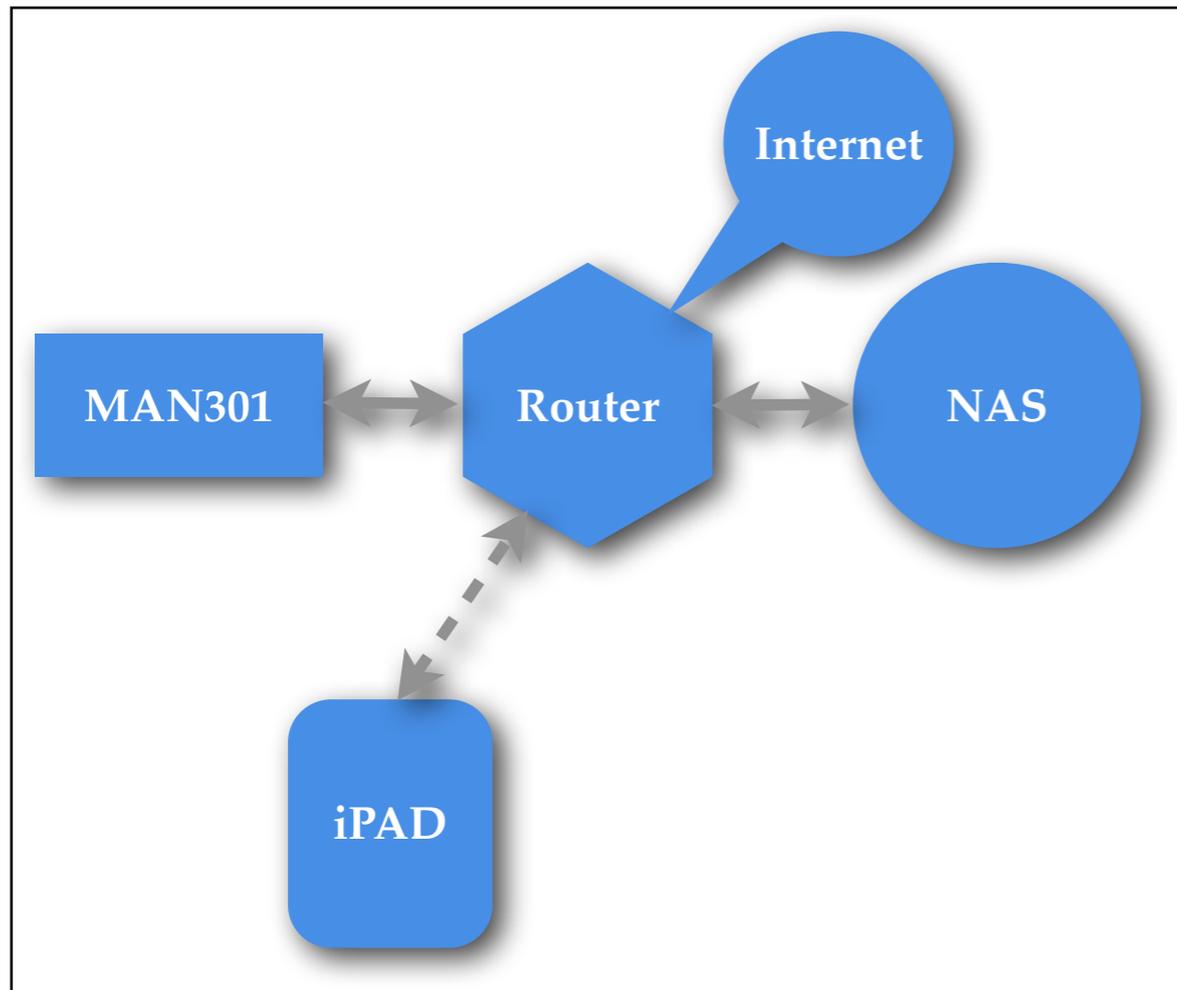
**Configuration 6:**

You use the MAN301 for CD Playback only:



This configuration can be as simple as shown above, but optionally it can be used with an Internet connection for fetching the meta data of the CD played. I.e. it then shows the track information and cover art of the CD you are playing.  
Select one of the Configurations 1 through 5 which resembles your setup most closely. Then read Chapter 4 / Section 1.

# System setup, Configuration 1

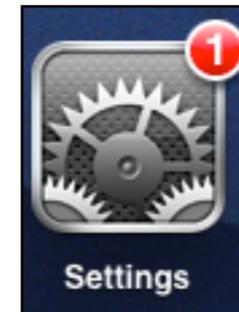


Configuration 1 connects the MAN301 to the Router via an Ethernet connection. The NAS also is connected to the Router. (You could also use e.g. a USB hard-drive connected to the MAN301's USB port instead of or in conjunction with the NAS). The iPad is WiFi connected to the router. The iPad could also be WiFi connected to the MAN301 if this is more convenient, e.g. because of limited WiFi reach. That then would be Configuration 2, i.e. proceed to Section 4 in that case.

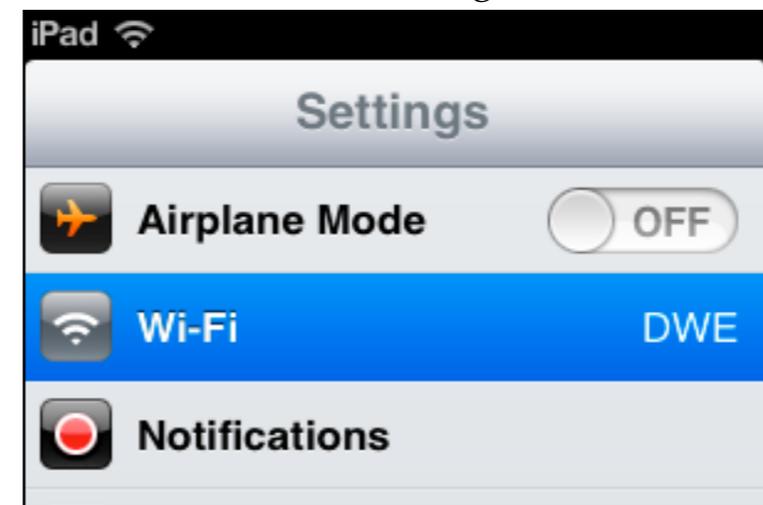
After you have wired the system as shown on the left and all units are powered, the next task is to establish a connection between the iPad and the MAN301 unit.

As you see in the configuration picture on the left, the iPad talks to the WiFi router. So if not already done:

Open the „Settings“ app on your iPad



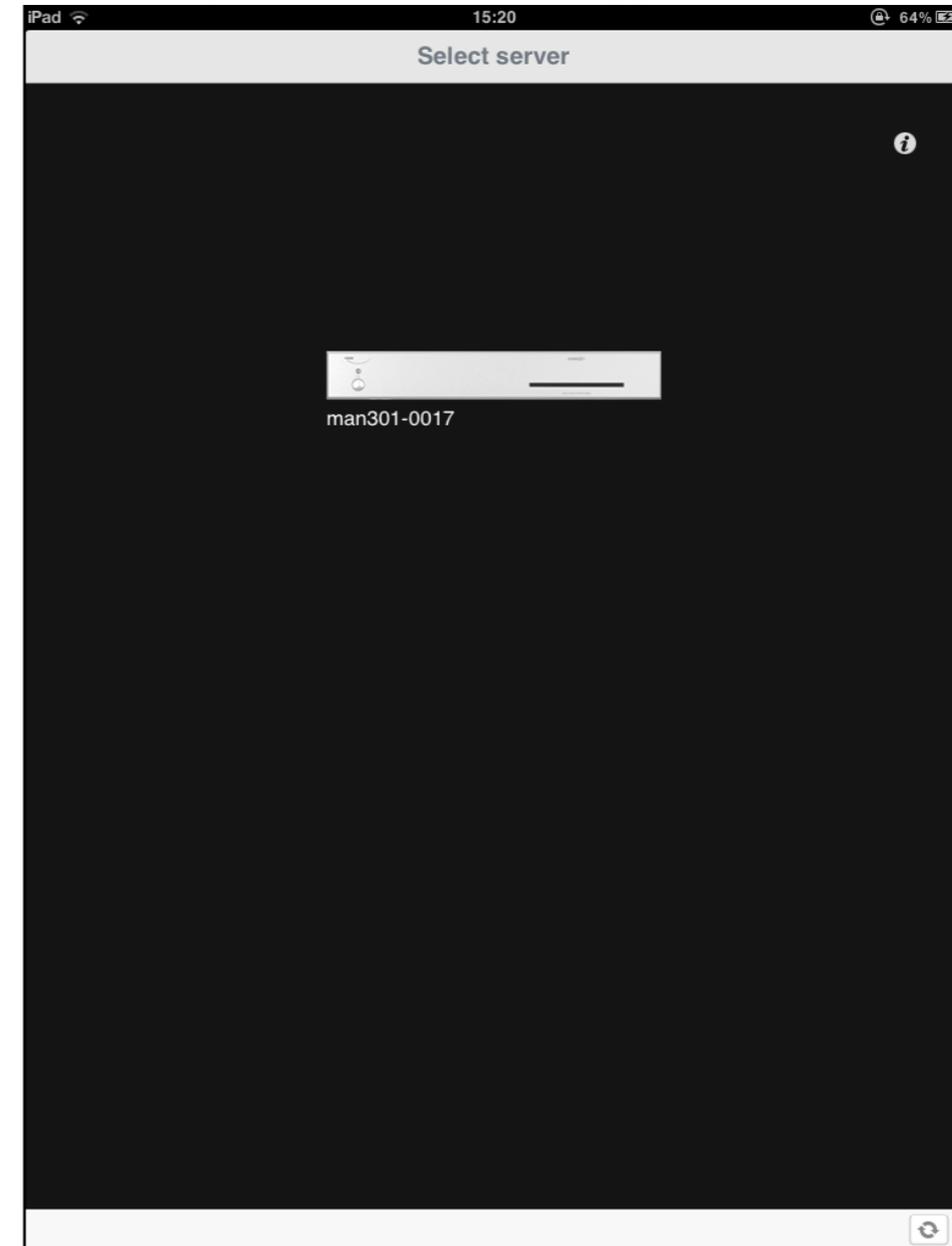
and select the WiFi Settings.



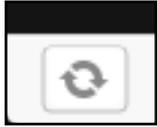
A screen with some resemblance to the one below shows up. Make sure the Wi-Fi is set to the ON position. If you have a WiFi router working, then you should see its **SSID** in the table. (The SSID of the WiFi router in this example is DWE). Connect to that network. You will need to know the password for the router's SSID to connect.



Once the iPad is connected to the WiFi you are ready to start the Weiss MAN app. At first startup a screen showing the MAN301 unit(s) on your network should appear. It looks like this:



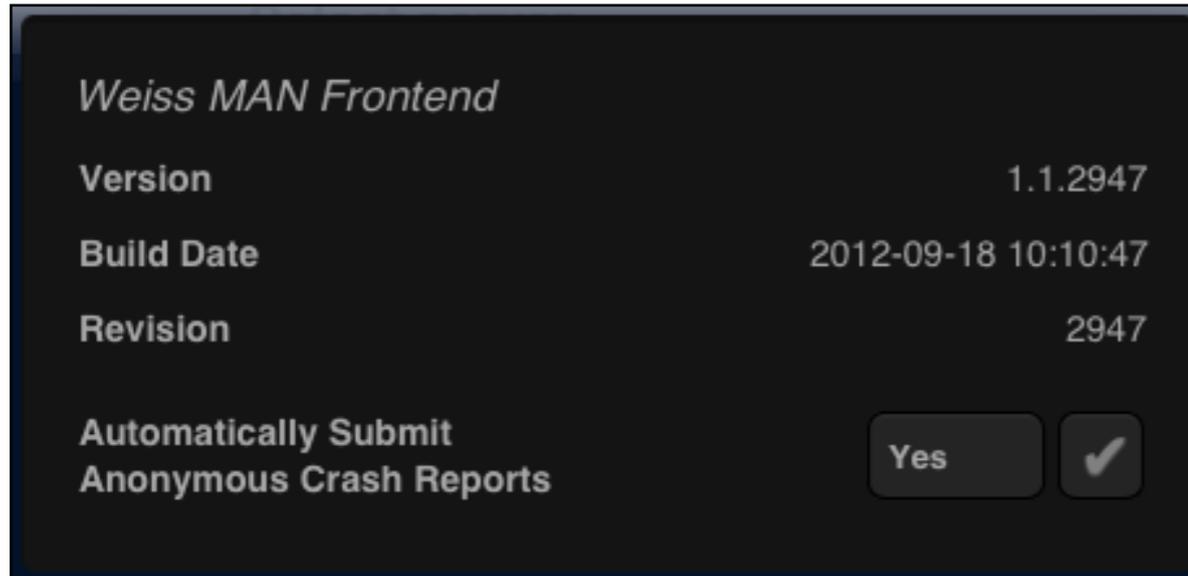
If you have more than one MAN301 unit on the network they will all be shown on the screen above (provided they are connected to the same network). If you do not see any MAN301 then tap on the



pad in the lower right corner of the screen to refresh the screen. Eventually the MAN301 unit(s) should show up with its appropriate serial number. If your MAN301 unit still does not show up try to close the iPad Weiss MAN app and restart it. (Closing is done via a double click on the iPad's Home button and then tap and hold the finger on the Weiss MAN icon until the icon wiggles. Then close the app.) By tapping and holding the finger on one of the MAN301 icons that unit can be made the preferred unit.



If you tap on the  pad the following screen shows up:

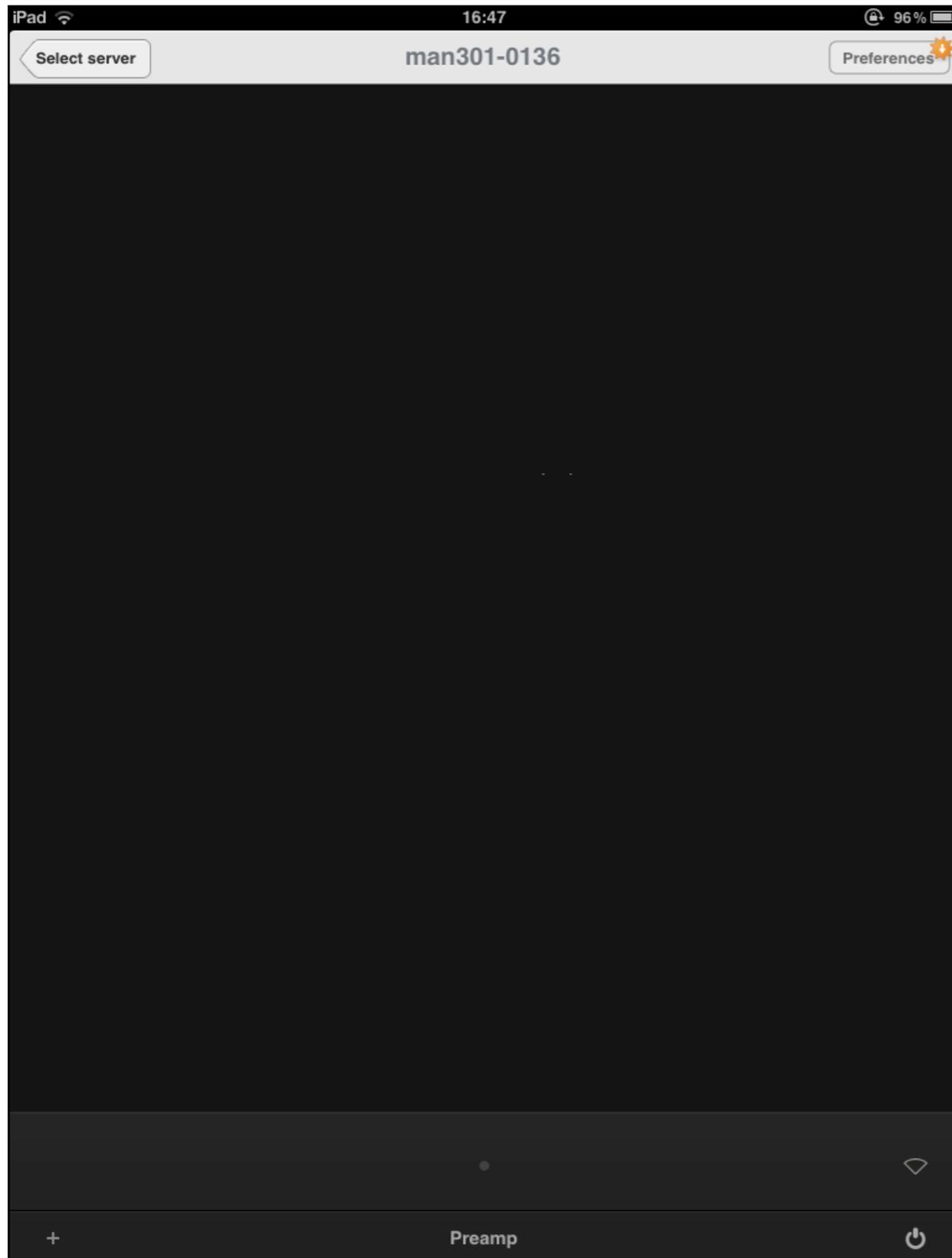


This shows the current version of the „Weiss MAN **Frontend**“ (this is the Weiss MAN app). You may also chose to automatically submit any crash reports of the Weiss MAN app to us at Weiss Engi-

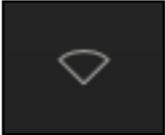
neering. These reports do not contain any personal data from your iPad, they contain data from the Weiss MAN app at the time of the app crashing and thus help us to solve the problem which has led to the crash. We suggest to allow your Weiss MAN app to send that information to us.

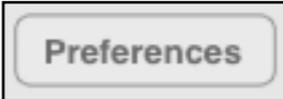
Now tap on the MAN301 symbol to select that unit for playback etc.

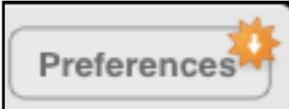
This will show an empty screen like this:



The shut down pad  in the lower right corner lets you switch off the MAN301 from within the app, switching on the MAN301 has to be done via its front panel switch though.

The  indicator in the lower right shows whether there is any uplink to a WiFi network active. The uplink is disabled in Configuration 1 as the MAN301 is connected to the Router via an Ethernet cable.

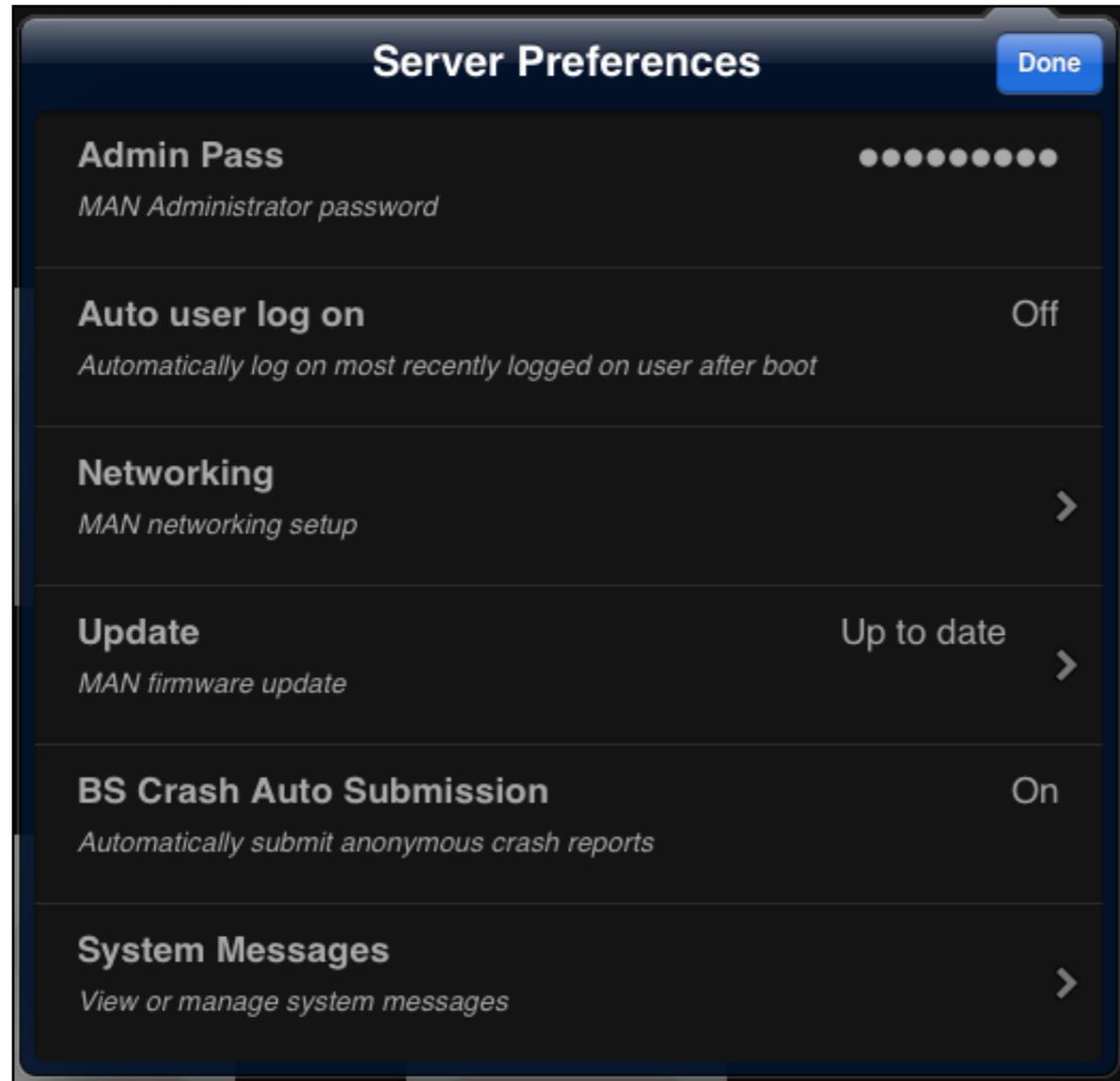
The  pad enters a setup page for a few very basic setup items.

If the Preferences pad looks like this:  then there is a new firmware for the MAN301 available for download.

Tap on the Preferences pad and then enter the Admin password which is wh10admin.

**NOTE: MAN301 Admin default password: wh10admin**

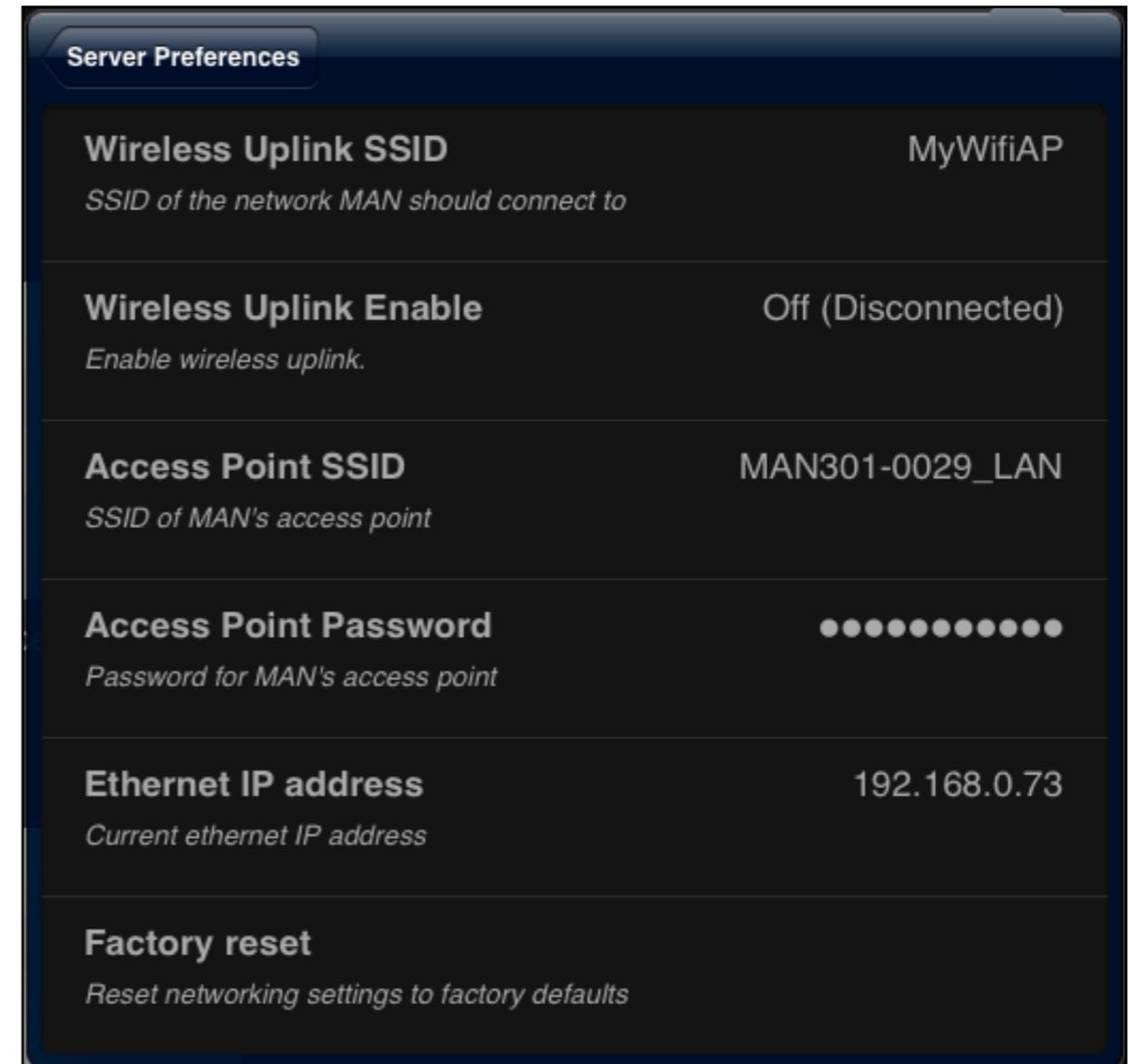
This brings up a screen as follows:



- The „Admin Pass” lets you select a different **administrator** password. **Note: If you decide to change the administrator password, make sure not to forget it!**
- The „Auto user log on” allows to set the MAN301 such that it logs on the most recent user automatically. This comes handy if there is only one user set up. The main advantage is, that the li-

brary / playlist display is refreshing quicker if auto user log on is enabled.

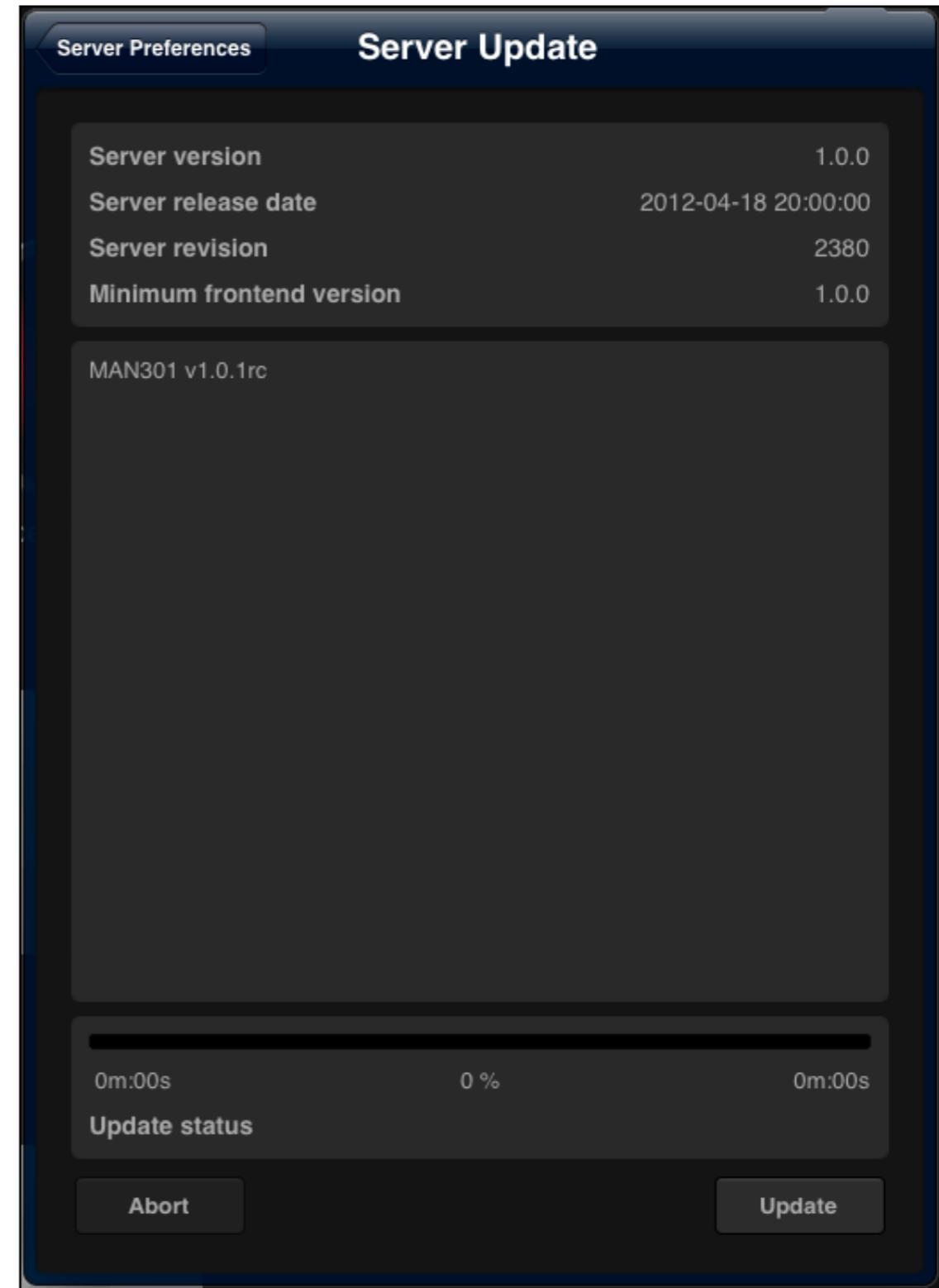
- The „Networking” entry allows to set up the MAN301 depending on the system architecture you have chosen in Section 2. Tapping on Networking reveals a page similar to this:



Usually you do not need to change anything on this page. The Uplink is disabled in Configuration 1, it can not be enabled. Here are the details to this page:

1. The „Wireless Uplink” entries are explained in the sections where the Configurations with Uplink enabled are described.
2. The „Access Point” entries show the SSID and password of the MAN301 access point. You need those if you set up the system such that the iPad is connected to the MAN301 directly. The entries are described in the appropriate sections.
3. The „Ethernet IP address” shows the IP address the MAN301 has got from the DHCP server, i.e. typically this is the router it is connected to.
4. The „factory reset” resets all network settings to the original settings when the MAN301 left the factory.

The next entry in the Server Preferences is the „Update” pad. Tapping on it reveals a screen similar to this:

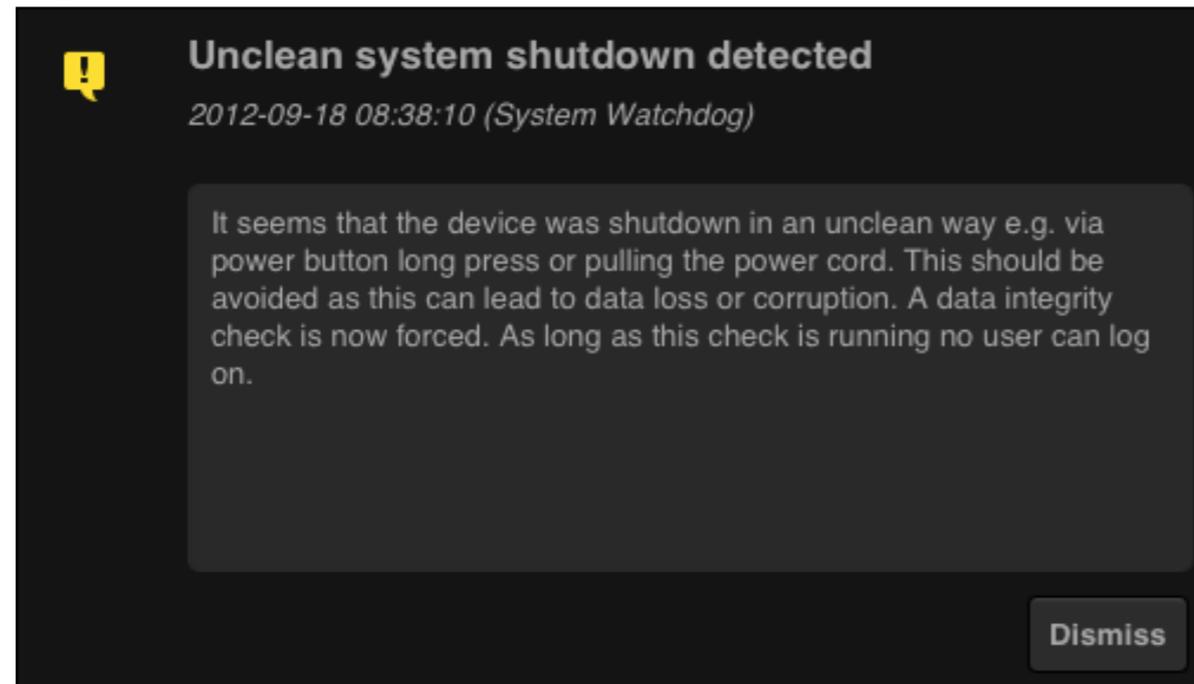


This allows you to update the MAN301 software via a download from the Weiss server. See Chapter 6, Section 1 for details. Do not proceed with updating before you have read Chapter 6, Section 1.

The next entry in the server Preferences is the „**BS Crash Auto Submission**“.

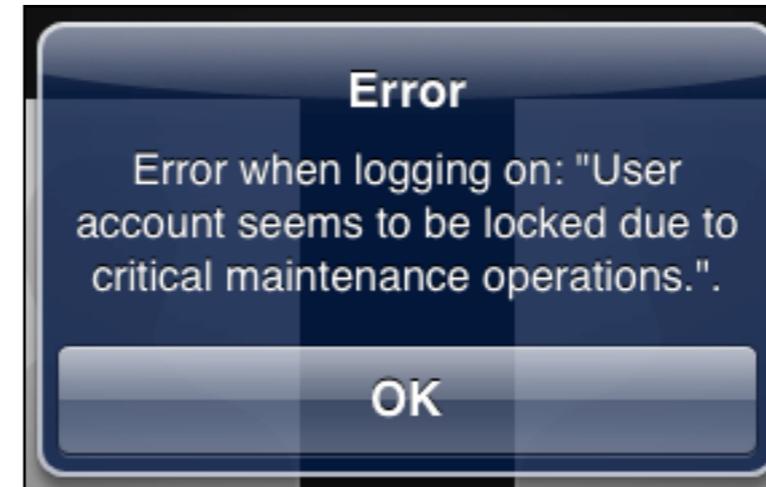
This allows the BS (Base Station = MAN301) to report any program bugs to us at Weiss. These reports do not contain any personal data from your iPad or MAN301, they contain data from the MAN301 at the time of the occurrence of the software crashing and thus help us to solve the problem which has led to the crash. We suggest to allow your Weiss MAN app to send that information to us.

The last entry is the „**System Messages**“, where system messages are shown in case there was a severe error detected. Such a message can look like this:

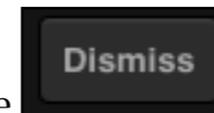


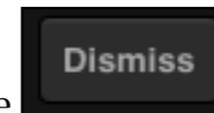
In this case the MAN301 was not closed properly and thus the databases may be corrupted. The MAN301 then restores the data bases

automatically. No user can log in until the databases are restored. The restoring process may take a few minutes. If an attempt to log in is made before the restoring has finished, this message is shown:



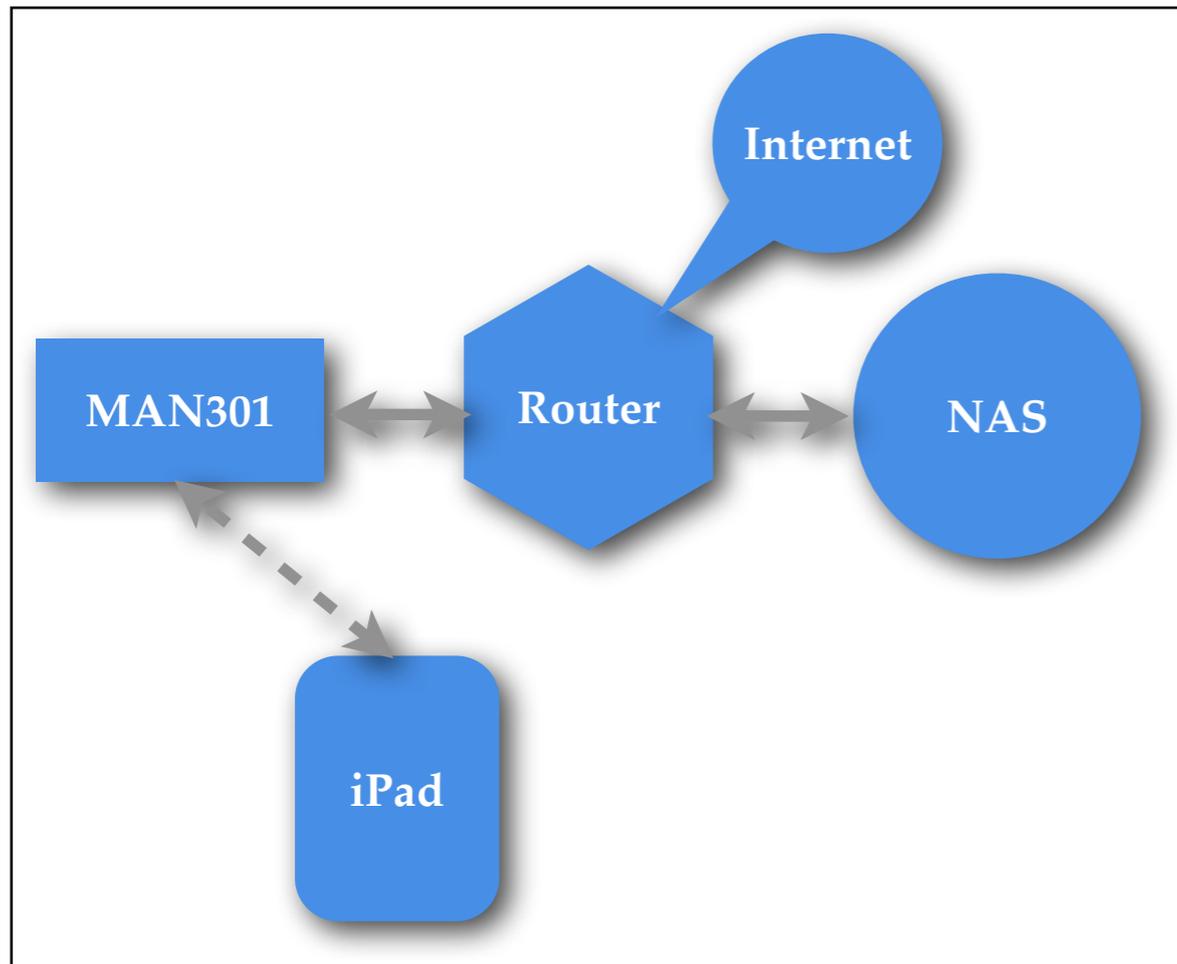
Simply wait and try again later.



The  pad allows to delete the system message.

Now that we have done the basic system configuration, user accounts can be added. This is described in Section 7.

## System setup, Configuration 2



Configuration 2 connects the MAN301 to the Router via an Ethernet connection. The iPad is WiFi connected to the MAN301 access point.

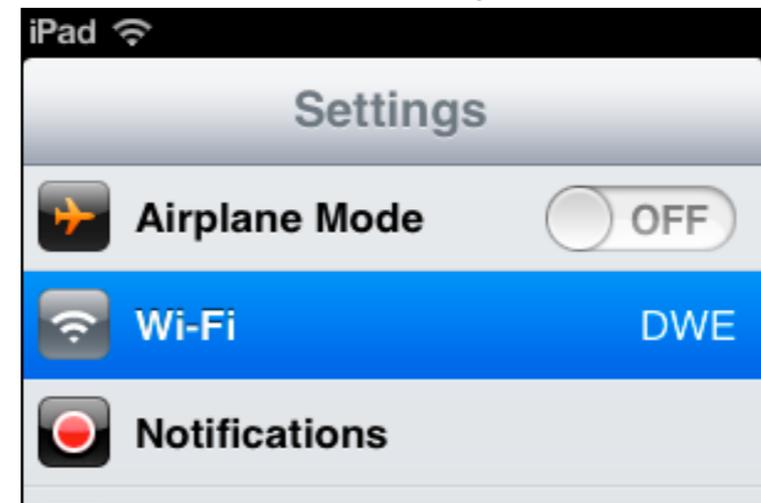
After you have wired the system as shown on the left and all units are powered, the next task is to establish a connection between the iPad and the MAN301 unit.

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and select the WiFi Settings.



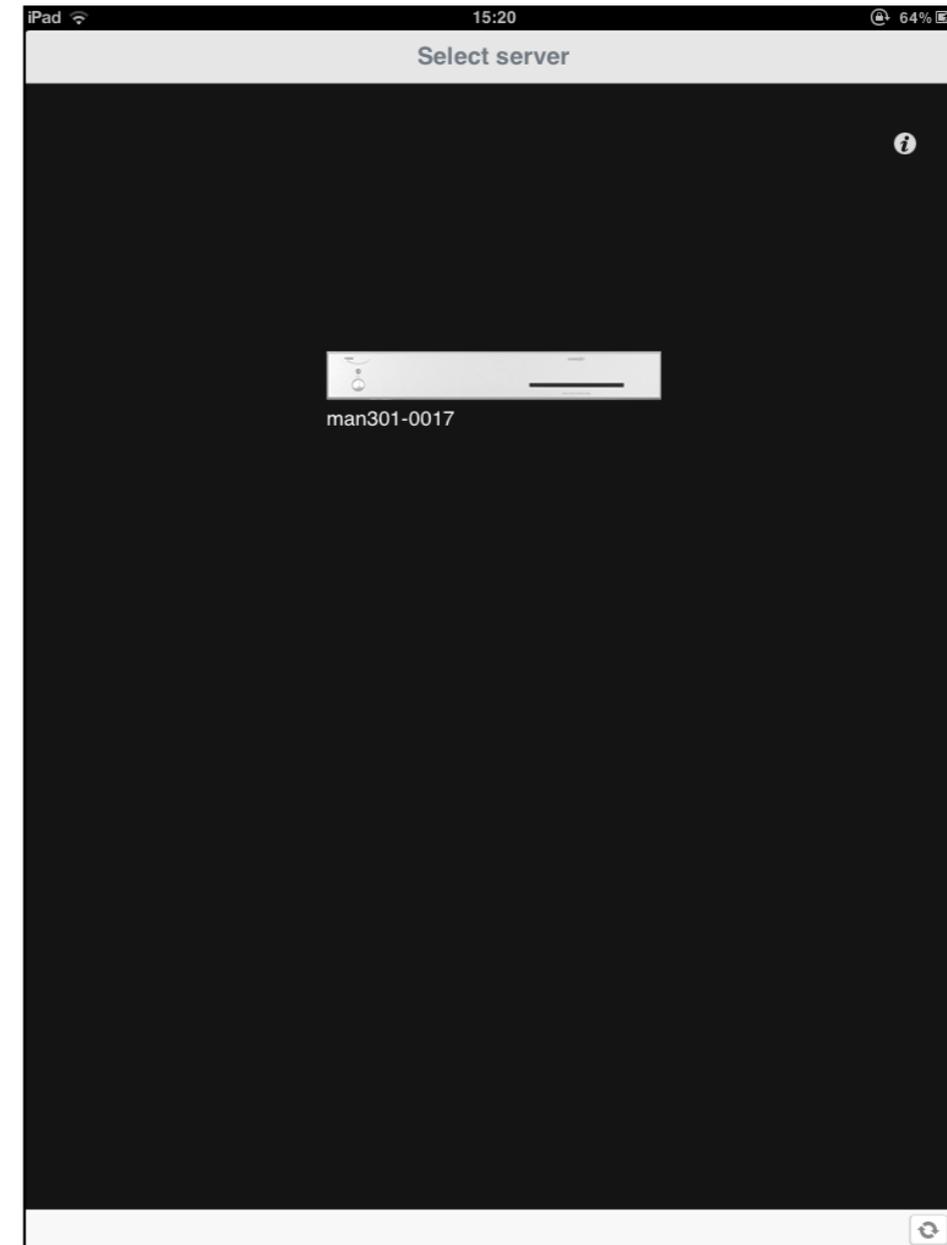
A screen with some resemblance to the one below shows up. Make sure the Wi-Fi is set to the ON position.

To connect the iPad to the MAN301 directly, tap on the MAN301 entry in the table. In the example below it is the MAN301-0029\_LAN entry. (The SSID of your MAN301 you can set on a setup page described further down if you prefer to have another SSID for the MAN301). The default SSID is MAN301-xxxx\_LAN, the xxxx denotes the serial number of your MAN301 unit minus 1000. Of course the MAN301 unit has to be switched on in order to appear in the list. You will be asked for the password, which is factory set to **WeissMAN301**. Make sure to type in this password exactly as given, including proper upper/lower case.

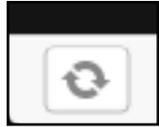


NOTE: MAN301 default SSID: MAN301-xxxx\_LAN  
default password: WeissMAN301

Once the iPad is connected to the proper WiFi you are ready to start the Weiss MAN app. At first startup a screen showing the MAN301 unit(s) on your network should appear. It looks like this:



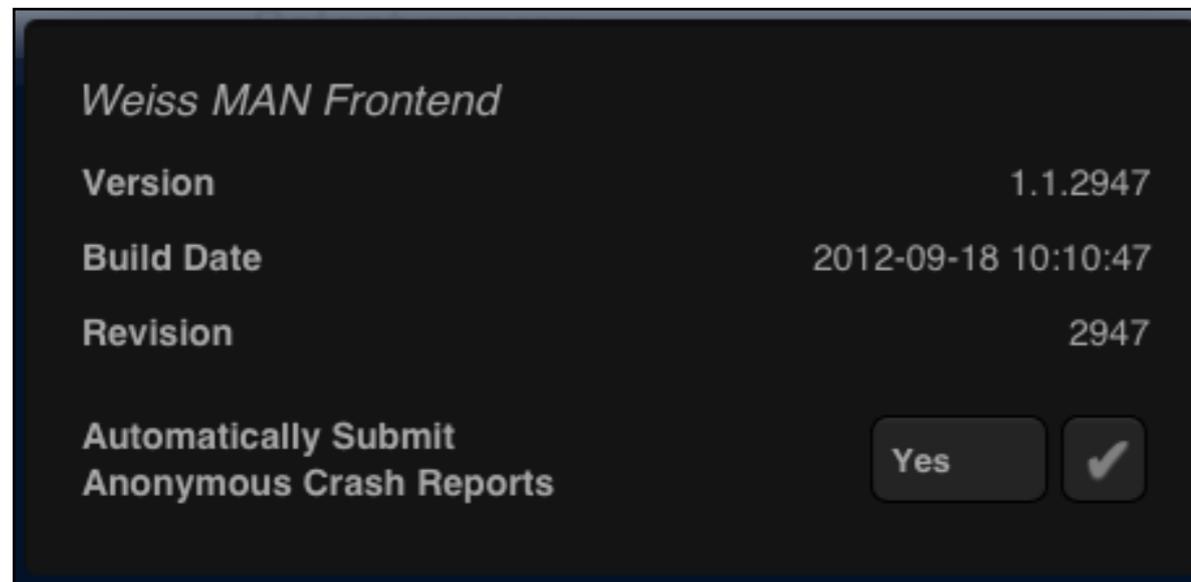
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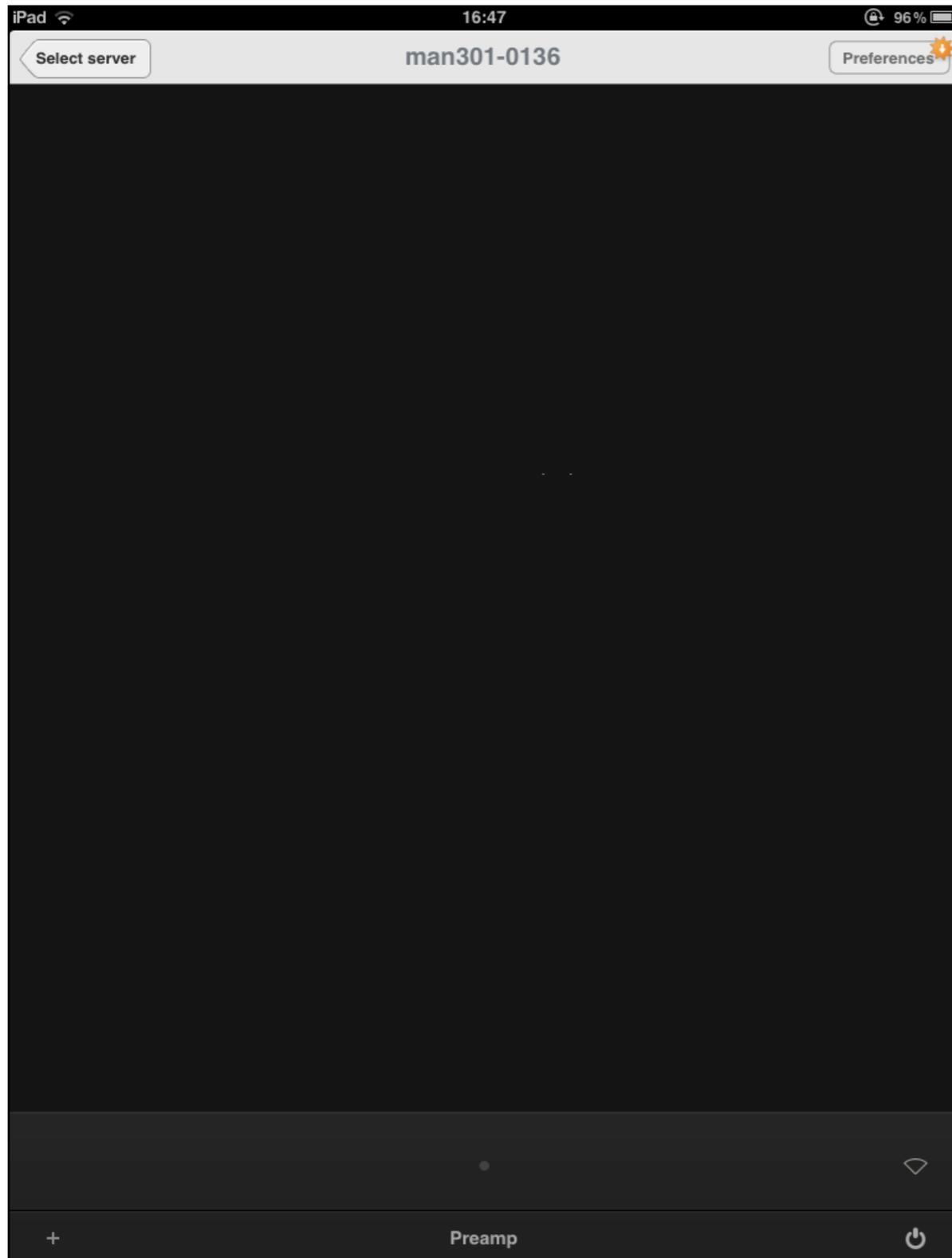
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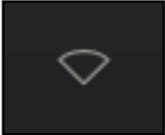
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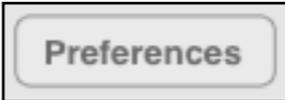
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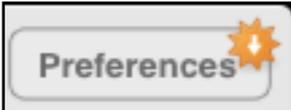
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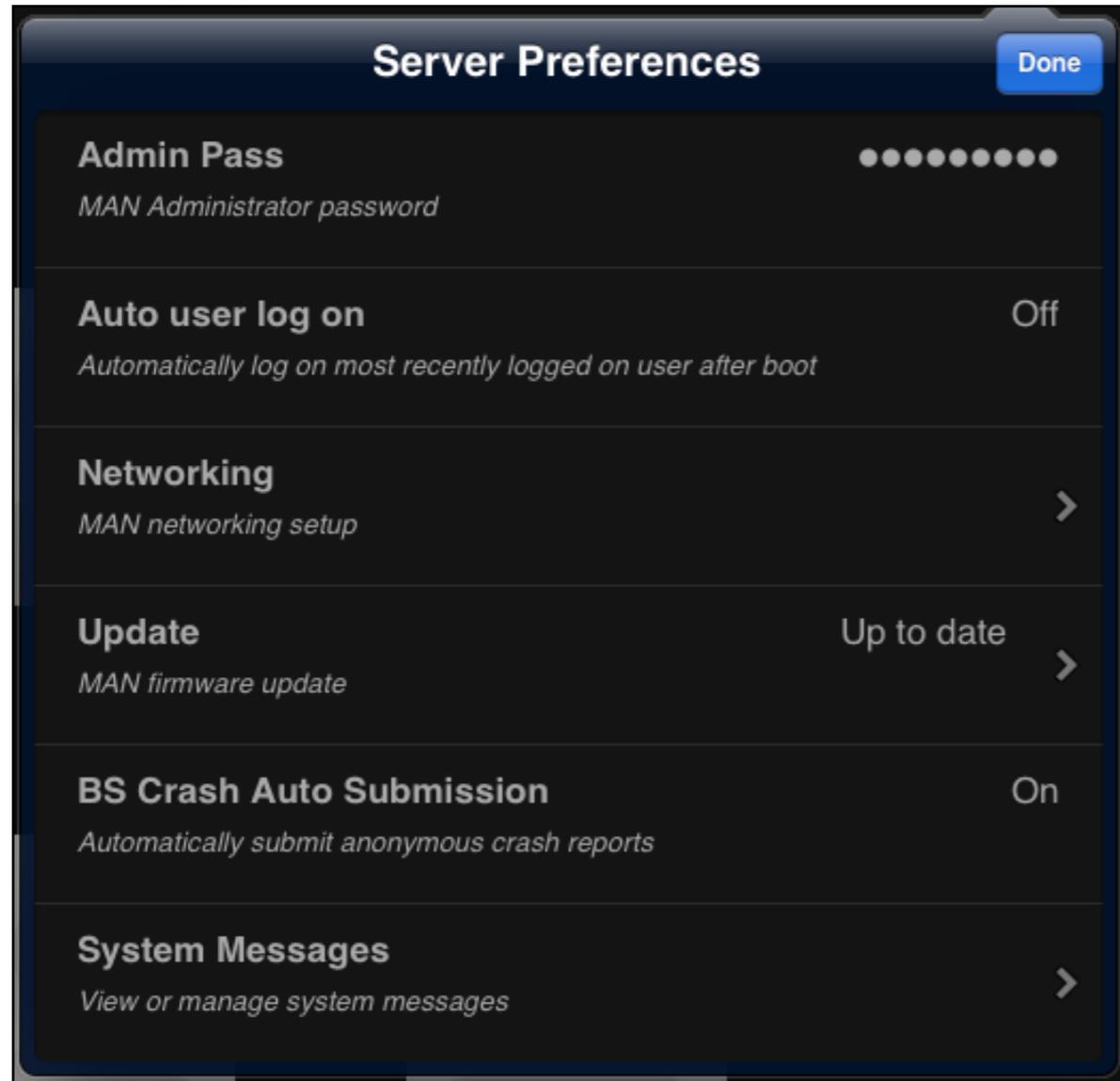
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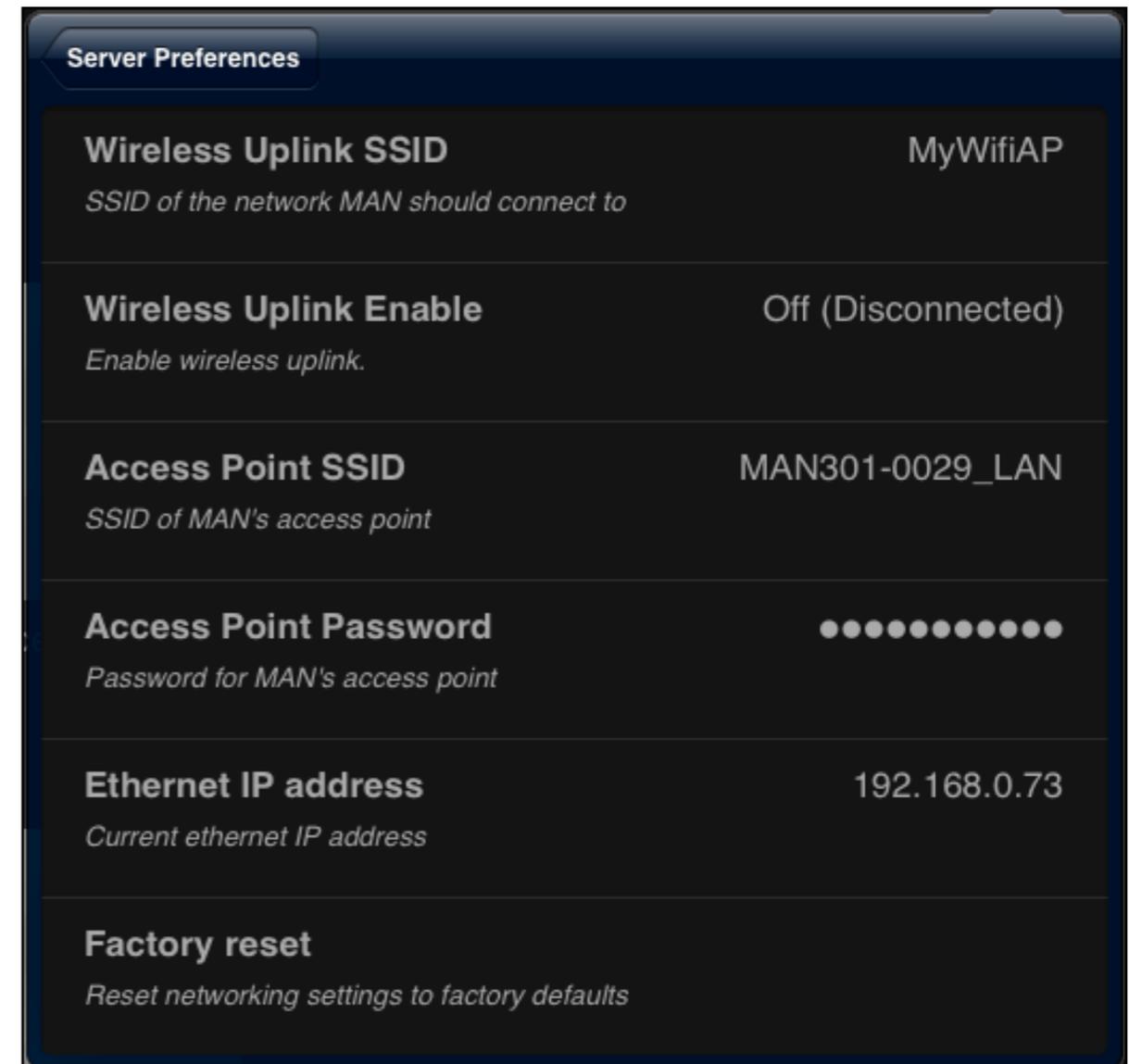
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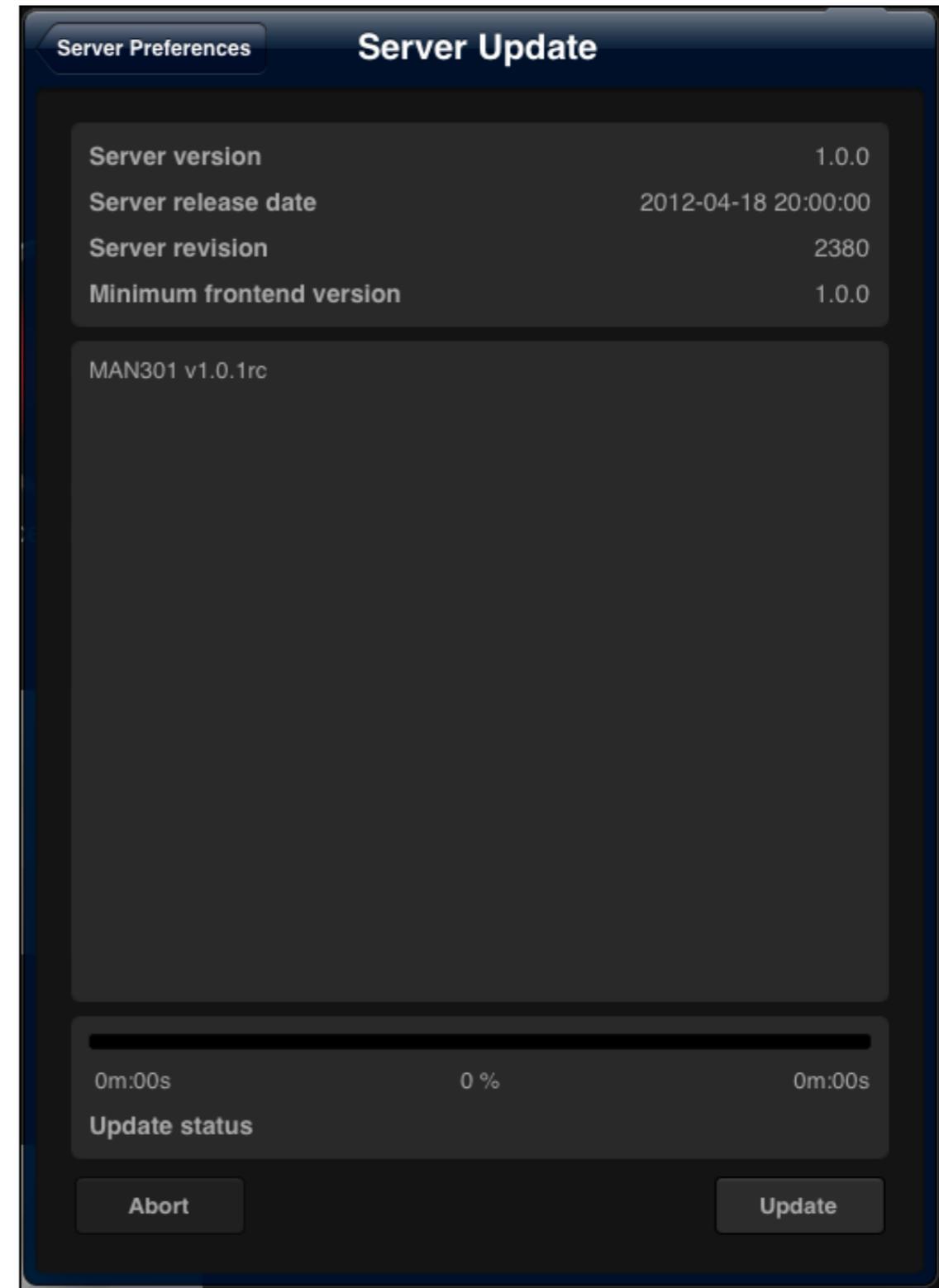


Usually you do not need to change anything on this page. The Wireless Uplink is disabled in Configuration 2, it can not be enabled.

Here are the details to this page:

1. The „Wireless Uplink” entries are explained in the sections where the Configurations with Uplink enabled are described.
2. The „Access Point” entries show the SSID and password of the MAN301 access point. Both SSID and password can be changed if preferred.
3. The „Ethernet IP address” shows the IP address the MAN301 has got from the DHCP server, i.e. typically this is the router it is connected to.
4. The „factory reset” resets all network settings to the original settings when the MAN301 left the factory.

The next entry in the Server Preferences is the „Update” pad. Tapping on it reveals a screen similar to this:



This allows you to update the MAN301 software via a download from the Weiss server. See Chapter 6, Section 1 for details. Do not proceed with updating before you have read Chapter 6, Section 1.

The next entry in the server Preferences is the „**BS Crash Auto Submission**“.

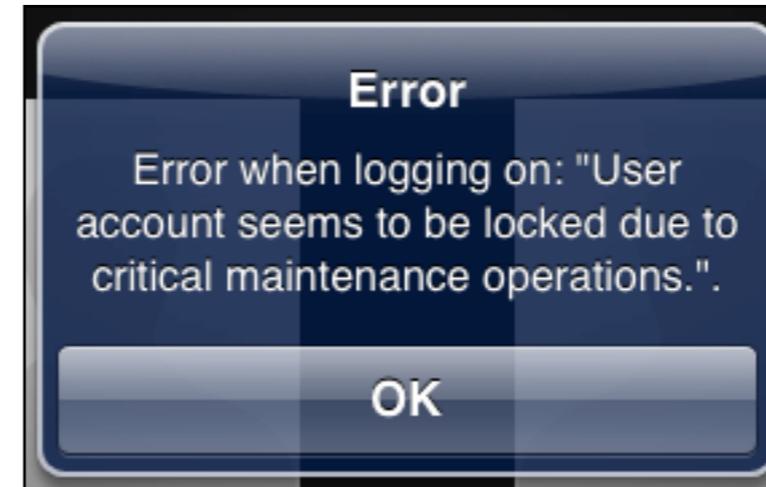
This allows the BS (Base Station = MAN301) to report any program bugs to us at Weiss. These reports do not contain any personal data from your iPad or MAN301, they contain data from the MAN301 at the time of the occurrence of the software crashing and thus help us to solve the problem which has led to the crash. We suggest to allow your Weiss MAN app to send that information to us.

The last entry is the „**System Messages**“, where system messages are shown in case there was a severe error detected. Such a message can look like this:

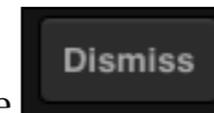


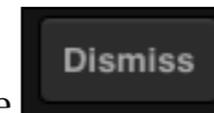
In this case the MAN301 was not closed properly and thus the databases may be corrupted. The MAN301 then restores the data bases.

No user can log in until the databases are restored. The restoring process may take a few minutes. If an attempt to log in is made before the restoring has finished, this message is shown:



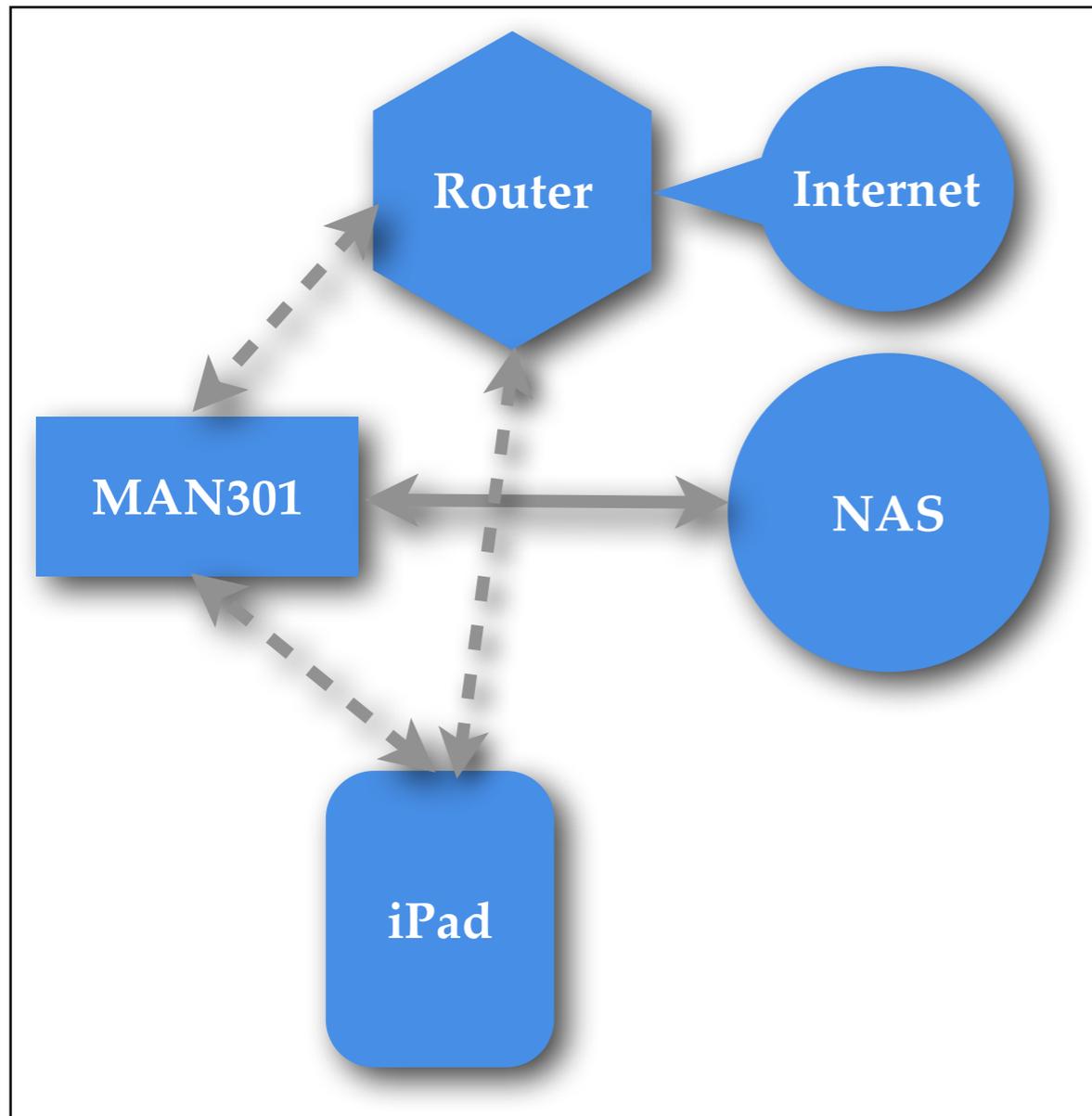
Simply wait and try again later.



The  pad allows to delete the system message.

Now that we have done the basic system configuration, user accounts can be added. This is described in Section 7.

# System setup, Configuration 4



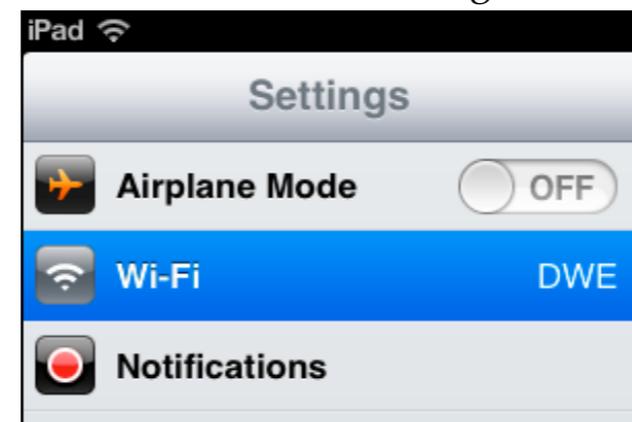
Configuration 4 connects the MAN301 to the Router via a WiFi uplink. The iPad is WiFi connected to the MAN301 access point or also to the WiFi Router.

After you have wired the system as shown on the left and all units are powered, the next task is to establish a connection between the iPad and the MAN301 unit. The iPad can later be connected directly to the WiFi Router if you prefer, but for setting up the MAN301 uplink to the WiFi Router the iPad needs to be connected to the MAN301 at first. **(Note: If the iPad is connected to the MAN301 as shown, the iPad won't be able to connect to the Internet, so after setting up the system you may prefer to connect the iPad to the WiFi Router in order to be able to connect to the Internet with the iPad.)** So:

Open the „Settings“ app on your iPad



and select the WiFi Settings.



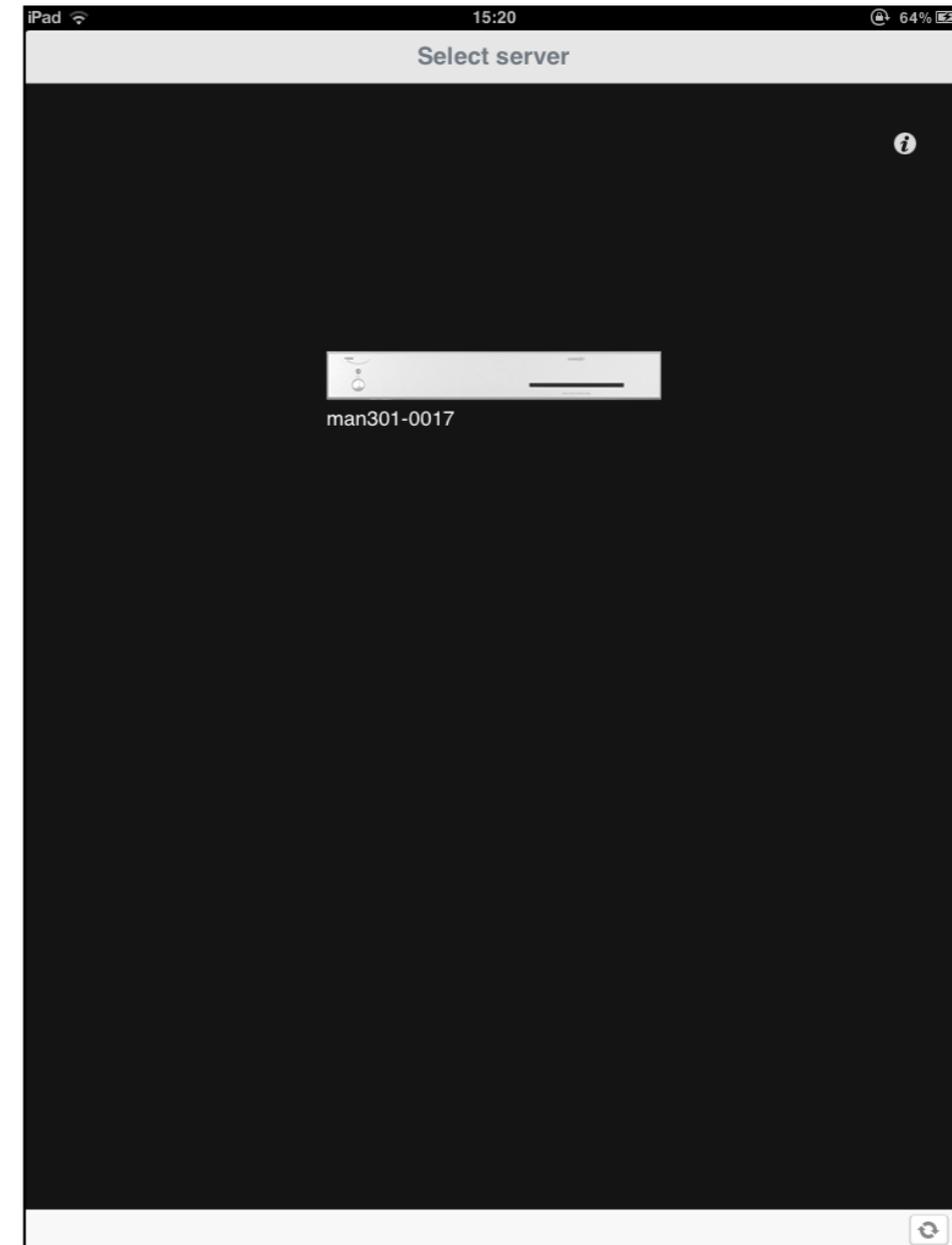
A screen with some resemblance to the one below shows up. Make sure the Wi-Fi is set to the ON position.

To connect the iPad to the MAN301 directly, tap on the MAN301 entry in the table. In the example below it is the MAN301-0029\_LAN entry. (The SSID of your MAN301 you can set on a setup page described further down if you prefer to have another SSID for the MAN301). The default SSID is MAN301-xxxx\_LAN, the xxxx denotes the serial number of your MAN301 unit minus 1000. Of course the MAN301 unit has to be switched on in order to appear in the list. You will be asked for the password, which is factory set to **WeissMAN301**. Make sure to type in this password exactly as given, including proper upper/lower case.

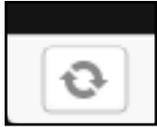


NOTE: MAN301 default SSID: MAN301-xxxx\_LAN  
default password: WeissMAN301

Once the iPad is connected to the proper WiFi you are ready to start the Weiss MAN app. At first startup a screen showing the MAN301 unit(s) on your network should appear. It looks like this:



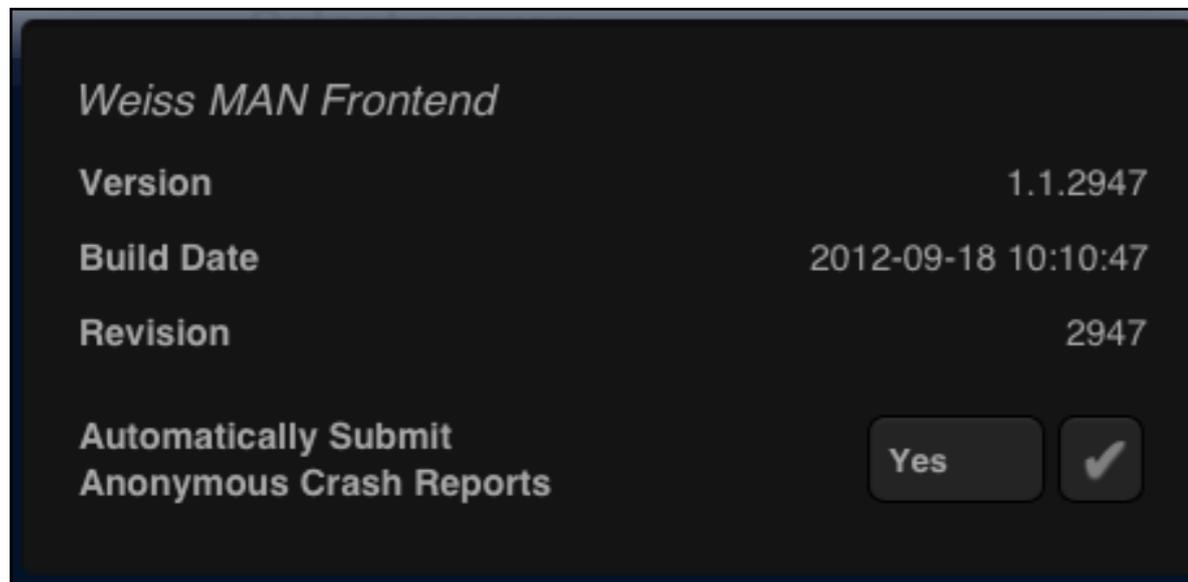
If you have more than one MAN301 unit on the network they will all be shown on the screen above (provided they are connected to the same network). If you do not see any MAN301 then tap on the



pad in the lower right corner of the screen to refresh the screen. Eventually the MAN301 unit(s) should show up with its appropriate serial number. If your MAN301 unit still does not show up try to close the iPad Weiss MAN app and restart it. (Closing is done via a double click on the iPad's Home button and then tap and hold the finger on the Weiss MAN icon until the icon wiggles. Then close the app.)

By tapping and holding the finger on one of the MAN301 icons that unit can be made the preferred unit.

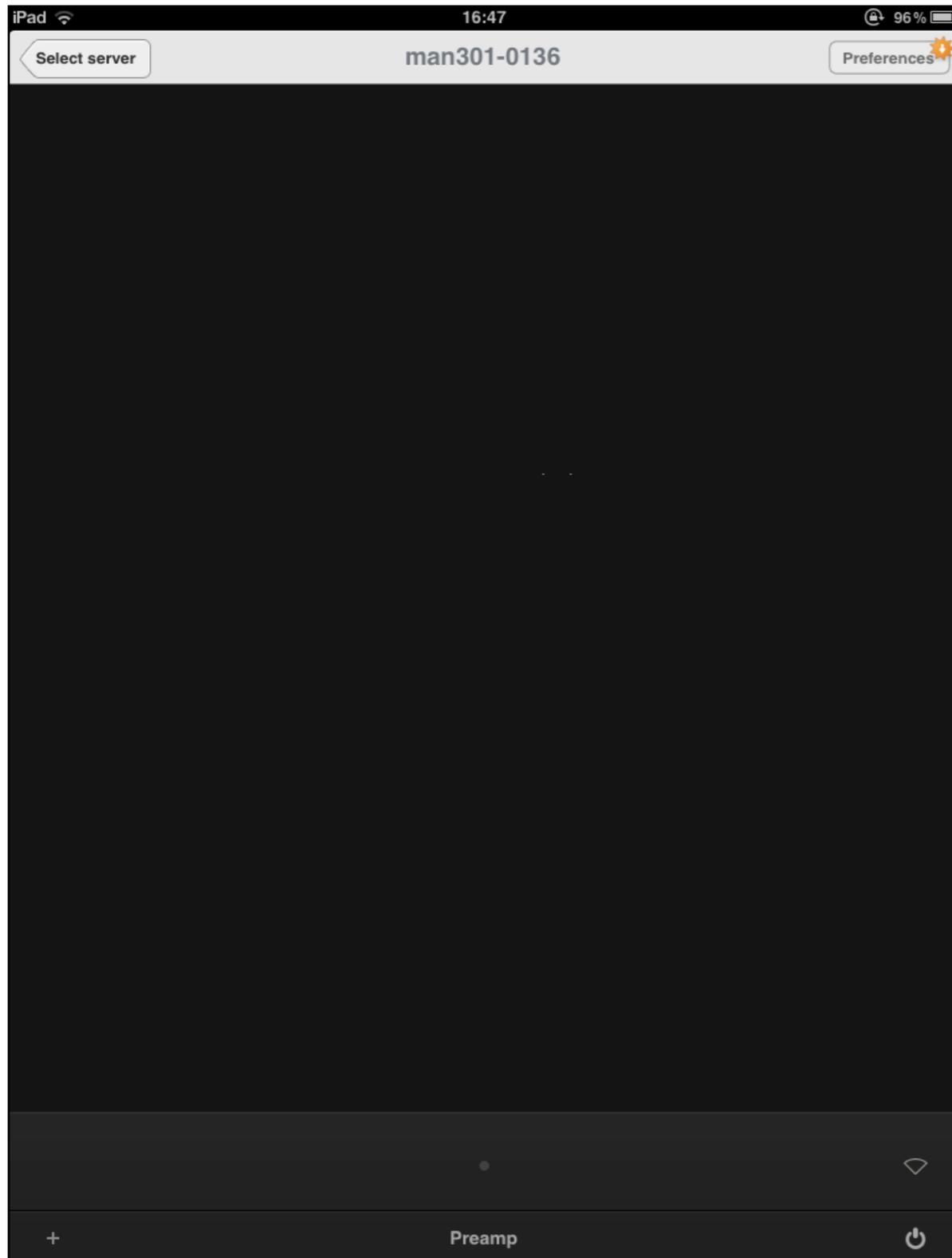
If you tap on the  pad the following screen shows up:



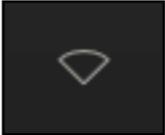
This shows the current version of the „Weiss MAN Frontend“ (this is the Weiss MAN app). You may also chose to automatically submit any crash reports of the Weiss MAN app to us at Weiss Engineering. These reports do not contain any personal data from your iPad, they contain data from the Weiss MAN app at the time of the app crashing and thus help us to solve the problem which has led to the crash. We suggest to allow your Weiss MAN app to send that information to us.

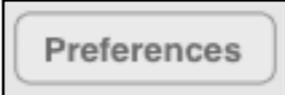
Now tap on the MAN301 symbol to select that unit for playback etc.

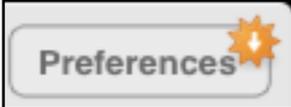
This will show an empty screen like this:



The shut down pad  in the lower right corner lets you switch off the MAN301 from within the app, switching on the MAN301 has to be done via its front panel switch though.

The  indicator in the lower right shows whether there is any uplink to a WiFi network active. To activate the uplink enter the Preferences menu as described below. The uplink will be activated for this Configuration 4.

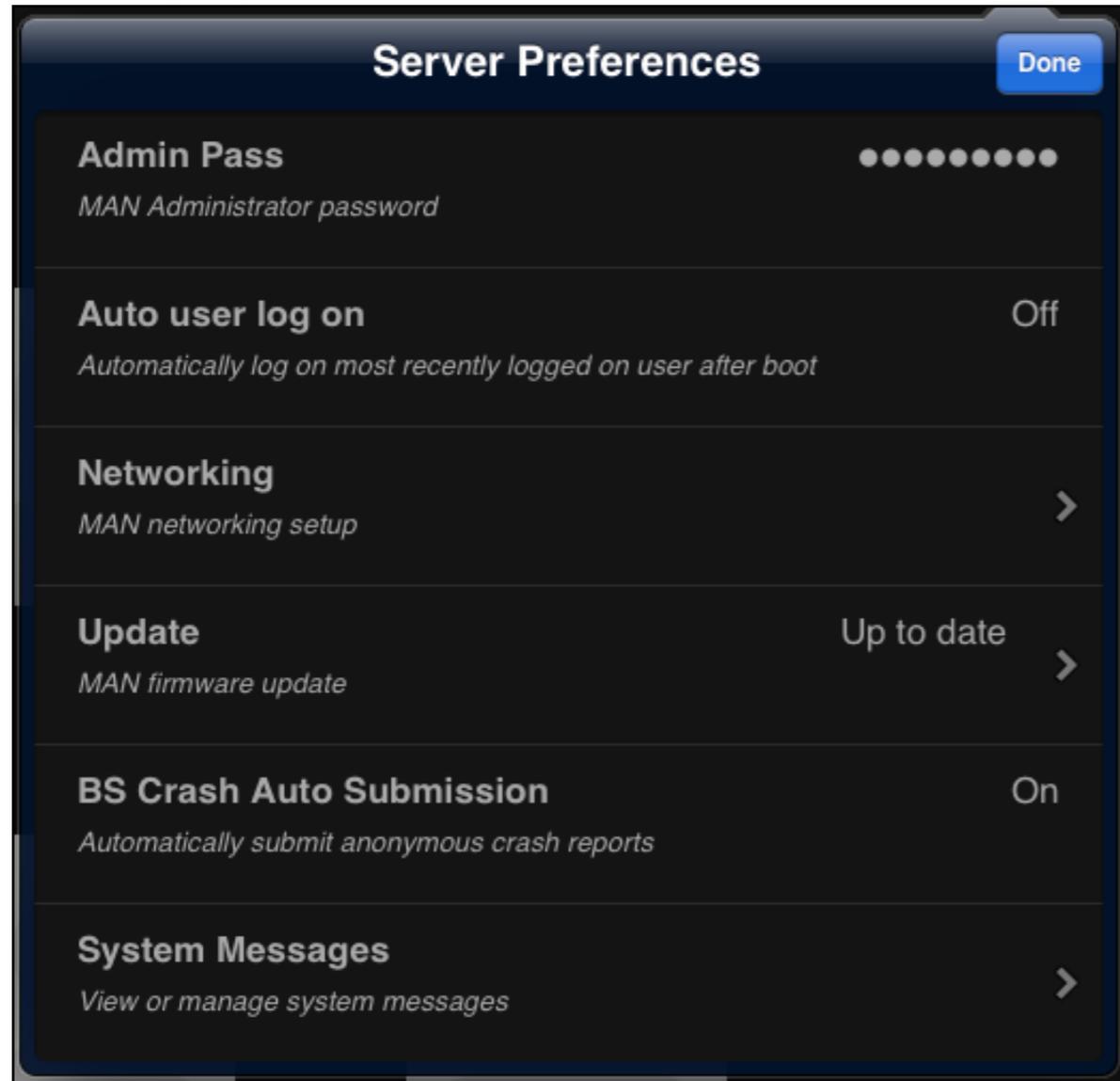
The  pad enters a setup page for a few very basic setup items.

If the Preferences pad looks like this:  then there is a new firmware for the MAN301 available for download.

Tap on the Preferences pad and then enter the Admin password which is wh10admin.

**NOTE: MAN301 Admin default password: wh10admin**

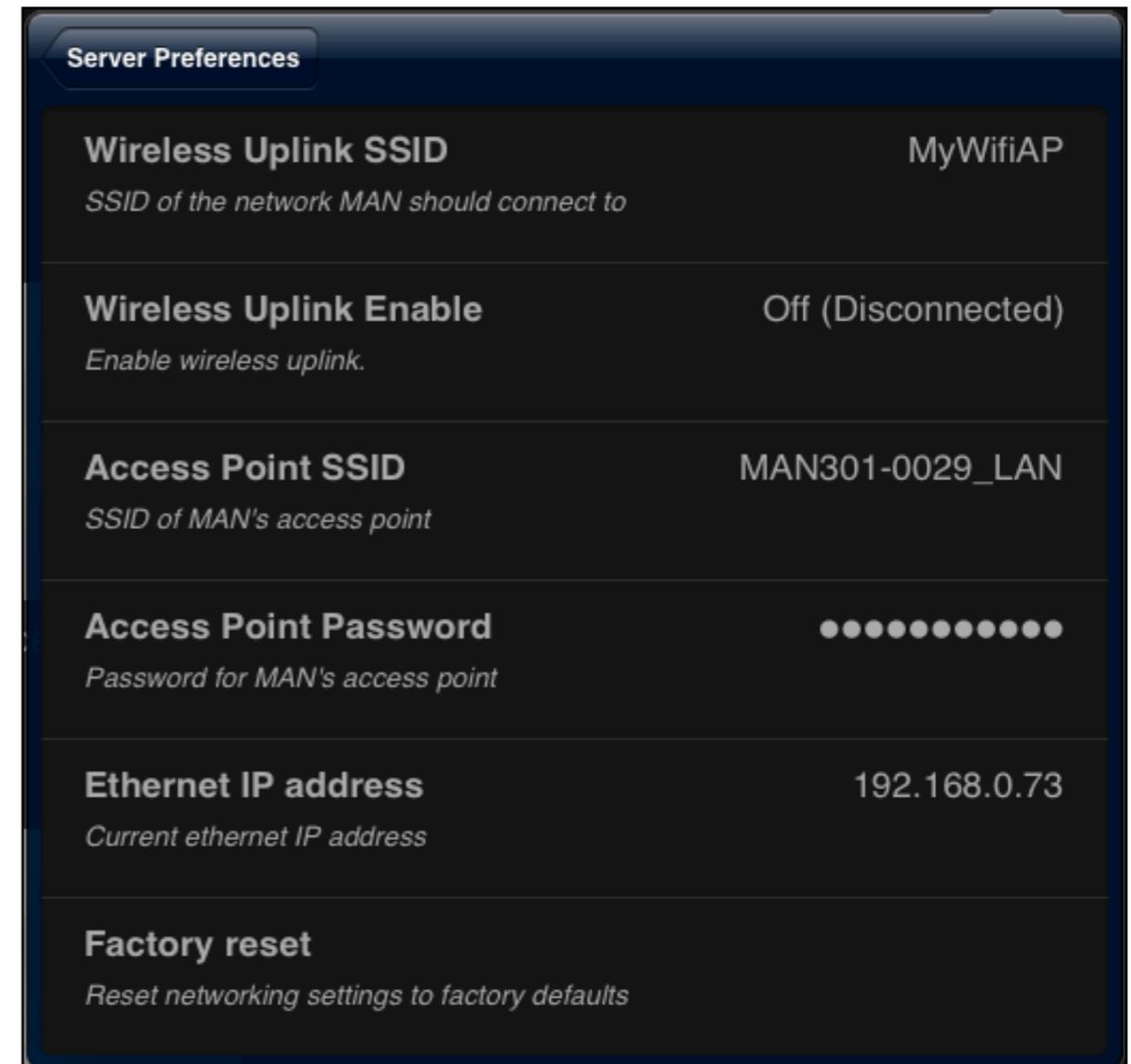
This brings up a screen as follows:



- The „**Admin Pass**” lets you select a different administrator password.
- The „**Auto user log on**” allows to set the MAN301 such that it logs on the most recent user automatically. This comes handy if there is only one user set up. The main advantage is, that the library / playlist display is refreshing quicker if auto user log on

is enabled.

- The „**Networking**” entry allows to set up the MAN301 depending on the system architecture you have chosen in Section 2. Tapping on Networking reveals this page:



1. The „Wireless Uplink” entries you need for the Configuration 4 setup. (**Note, the uplink only works if the MAN301 is not con-**

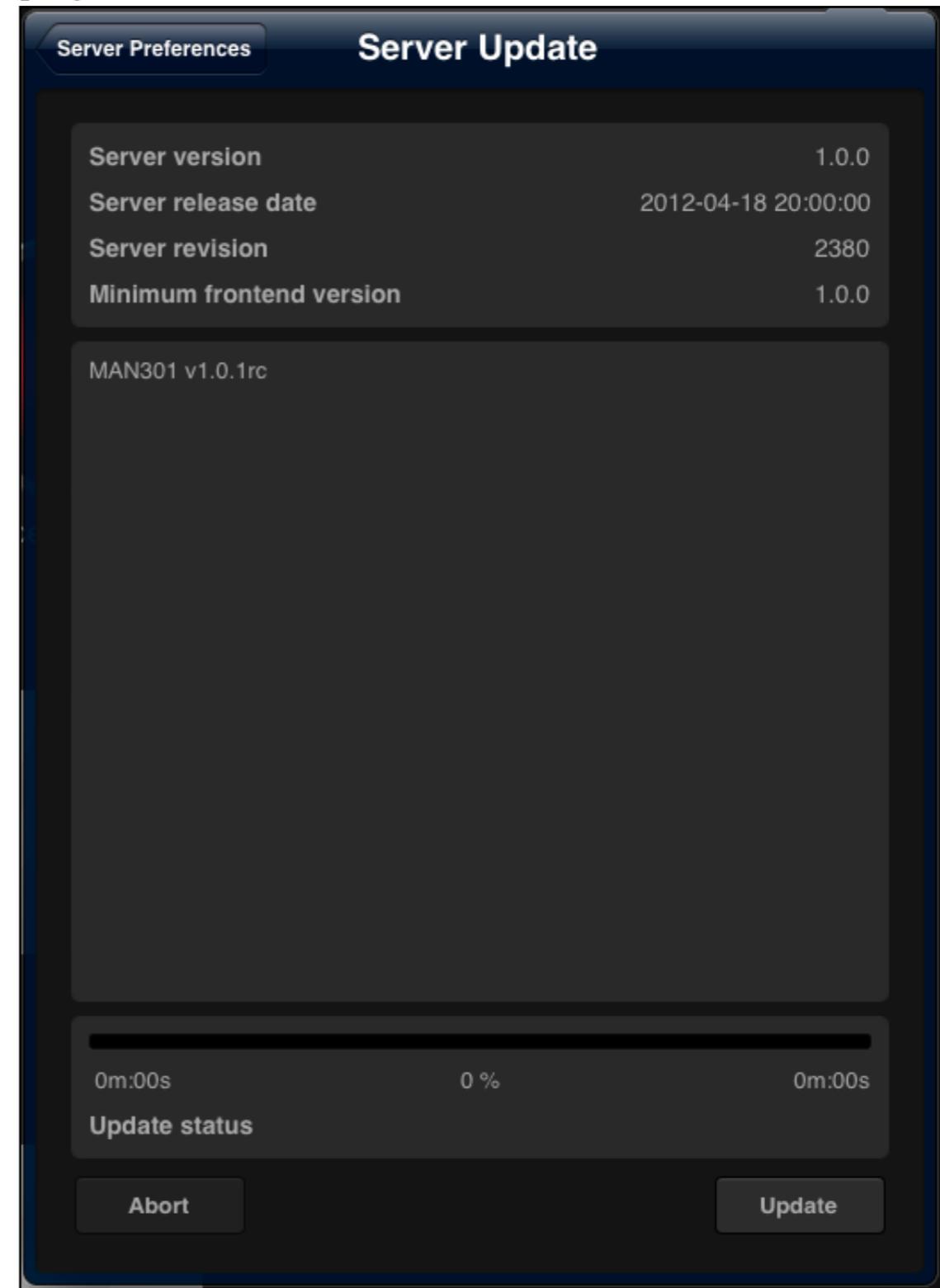
**nected to the network via an Ethernet cable):** To set up the uplink proceed as follows:

- first enable the uplink by tapping on „Wireless Uplink Enable” and then select „on”. It now scans for the available SSIDs. This may take some time, just wait until On (Scanning) is shown.
- tap on „Wireless Uplink SSID” and select the SSID of your WiFi network (you may have to select Wireless Uplink SSID several times until your WiFi network SSID appears in the list); then enter the password for the WiFi network (SSID) you have selected.

- Now wait until the connection is established. Enabling the uplink may temporarily switch off the access point, so the iPad may get disconnected. Simply reconnect it to the MAN301 in the Wi-Fi Networks page of the iPad Settings on the iPad. It may help to switch off the Wi-Fi on the iPad and then switch it on again. Note, it takes some time until the uplink is established for the first time. After establishing the uplink it is advisable to reboot the MAN301 unit.

2. The „Access Point” entries show the SSID and password of the MAN301 access point. Both SSID and password can be changed if preferred. (This does not yet work in the current version).
3. The „Ethernet IP address” show the IP address the MAN301 has got from the DHCP server.
4. The „factory reset” resets all network settings to the original settings when the MAN301 left the factory.

The next entry in the Server Preferences is the „Update” pad. Tapping on it reveals a screen similar to this:



This allows you to update the MAN301 software via a download from the Weiss server. See Chapter 6, Section 1 for details. Do not proceed with updating before you have read Chapter 6, Section 1.

The next entry in the server Preferences is the „**BS Crash Auto Submission**“.

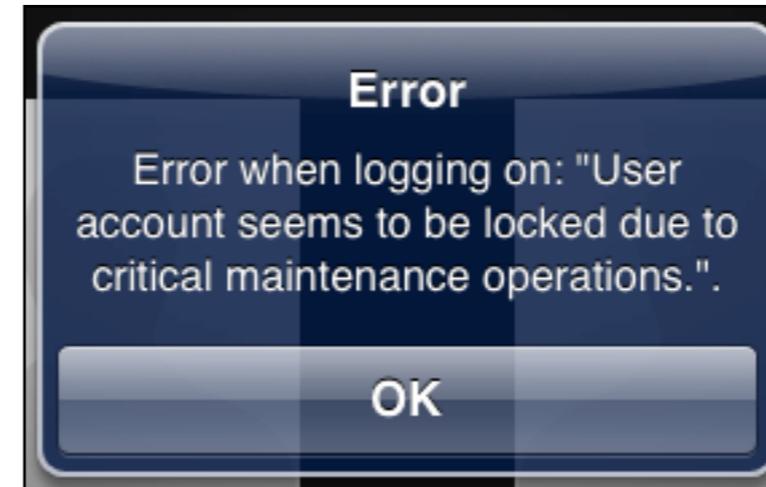
This allows the BS (Base Station = MAN301) to report any program bugs to us at Weiss. These reports do not contain any personal data from your iPad or MAN301, they contain data from the MAN301 at the time of the occurrence of the software crashing and thus help us to solve the problem which has led to the crash. We suggest to allow your Weiss MAN app to send that information to us.

The last entry is the „**System Messages**“, where system messages are shown in case there was a severe error detected. Such a message can look like this:

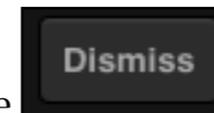


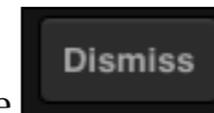
In this case the MAN301 was not closed properly and thus the databases may be corrupted. The MAN301 then restores the data bases.

No user can log in until the databases are restored. The restoring process may take a few minutes. If an attempt to log in is made before the restoring has finished, this message is shown:



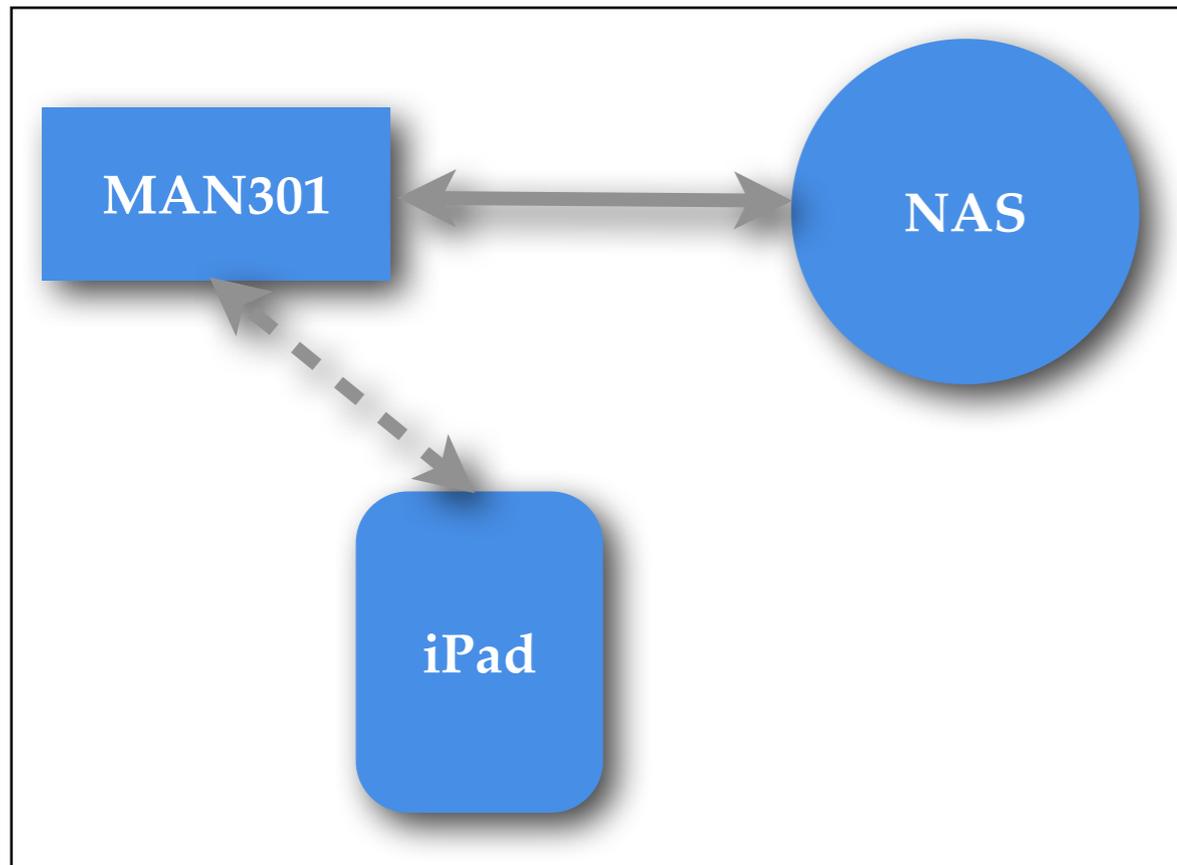
Simply wait and try again later.



The  pad allows to delete the system message.

Now that we have done the basic system configuration, user accounts can be added. This is described in Section 7.

# System setup, Configuration 5



Configuration 5 connects the MAN301 directly to the NAS (or simply to a USB or Firewire hard-disk). The iPad is WiFi connected to the MAN301.

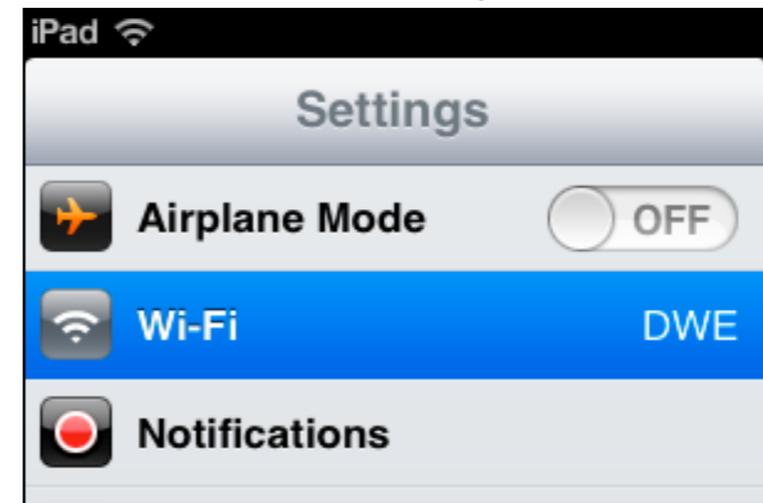
After you have wired the system as shown on the left and all units are powered, the next task is to establish a connection between the iPad and the MAN301 unit.

As you see in the configuration picture on the left, the iPad talks to the MAN301. So:

Open the „Settings” app on your iPad



and select the WiFi Settings.



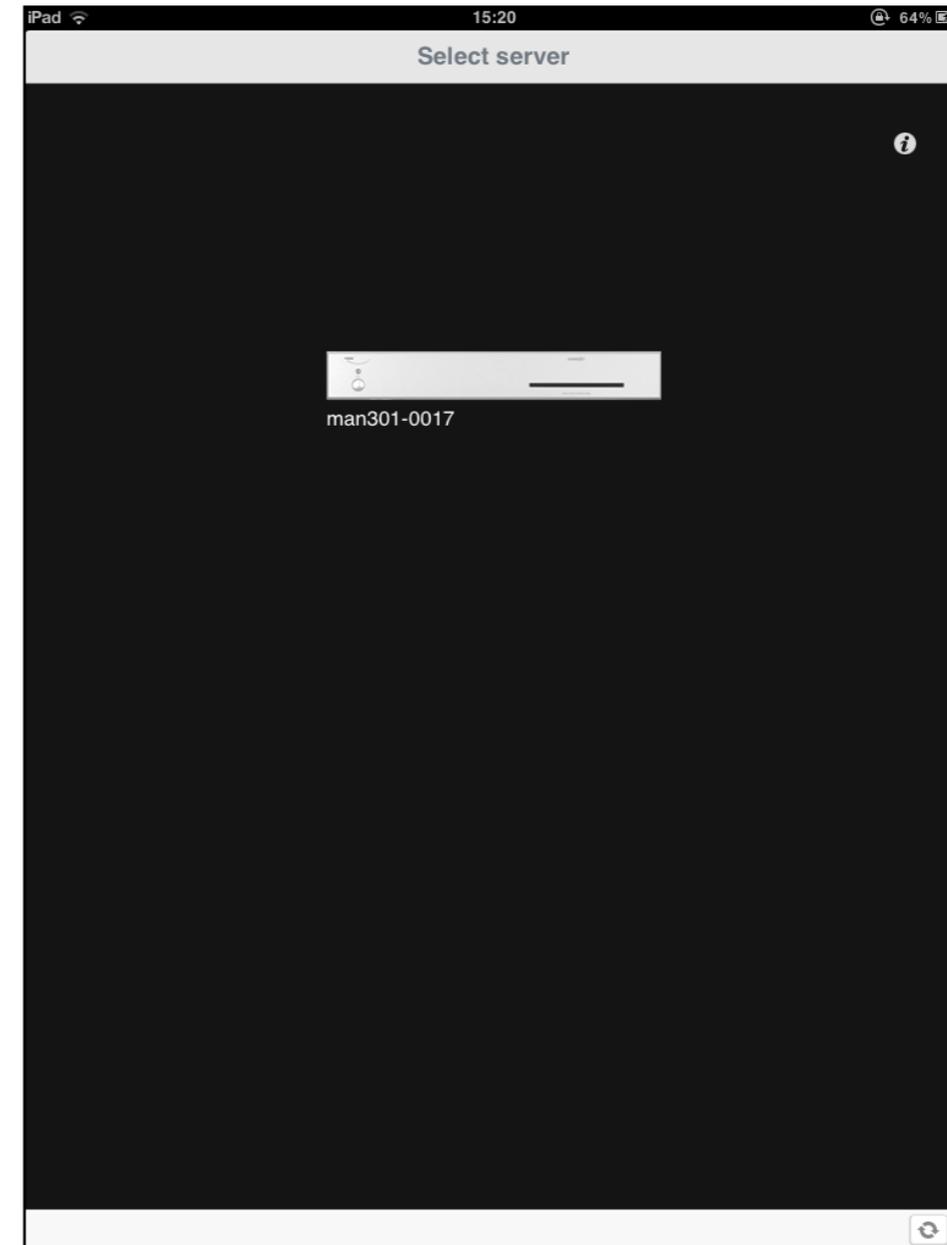
A screen with some resemblance to the one below shows up. Make sure the Wi-Fi is set to the ON position.

To connect the iPad to the MAN301 directly, tap on the MAN301 entry in the table. In the example below it is the MAN301-0029\_LAN entry. (The SSID of your MAN301 you can set on a setup page described further down if you prefer to have another SSID for the MAN301). The default SSID is MAN301-xxxx\_LAN, the xxxx denotes the serial number of your MAN301 unit minus 1000. Of course the MAN301 unit has to be switched on in order to appear in the list. You will be asked for the password, which is factory set to **WeissMAN301**. Make sure to type in this password exactly as given, including proper upper/lower case.

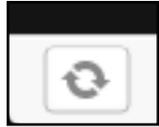


NOTE: MAN301 default SSID: MAN301-xxxx\_LAN  
default password: WeissMAN301

Once the iPad is connected to the proper WiFi you are ready to start the Weiss MAN app. At first startup a screen showing the MAN301 unit(s) on your network should appear. It looks like this:



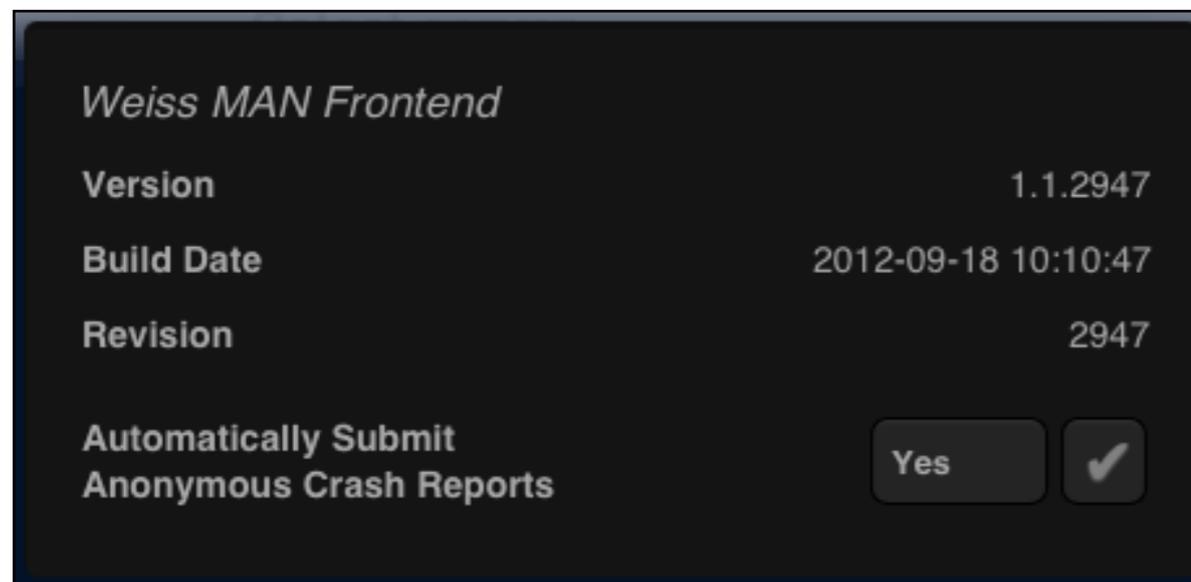
If you have more than one MAN301 unit on the network they will all be shown on the screen above (provided they are connected to the same network). If you do not see any MAN301 then tap on the



pad in the lower right corner of the screen to refresh the screen. Eventually the MAN301 unit(s) should show up with its appropriate serial number. If your MAN301 unit still does not show up try to close the iPad Weiss MAN app and restart it. (Closing is done via a double click on the iPad's Home button and then tap and hold the finger on the Weiss MAN icon until the icon wiggles. Then close the app.)

By tapping and holding the finger on one of the MAN301 icons that unit can be made the preferred unit.

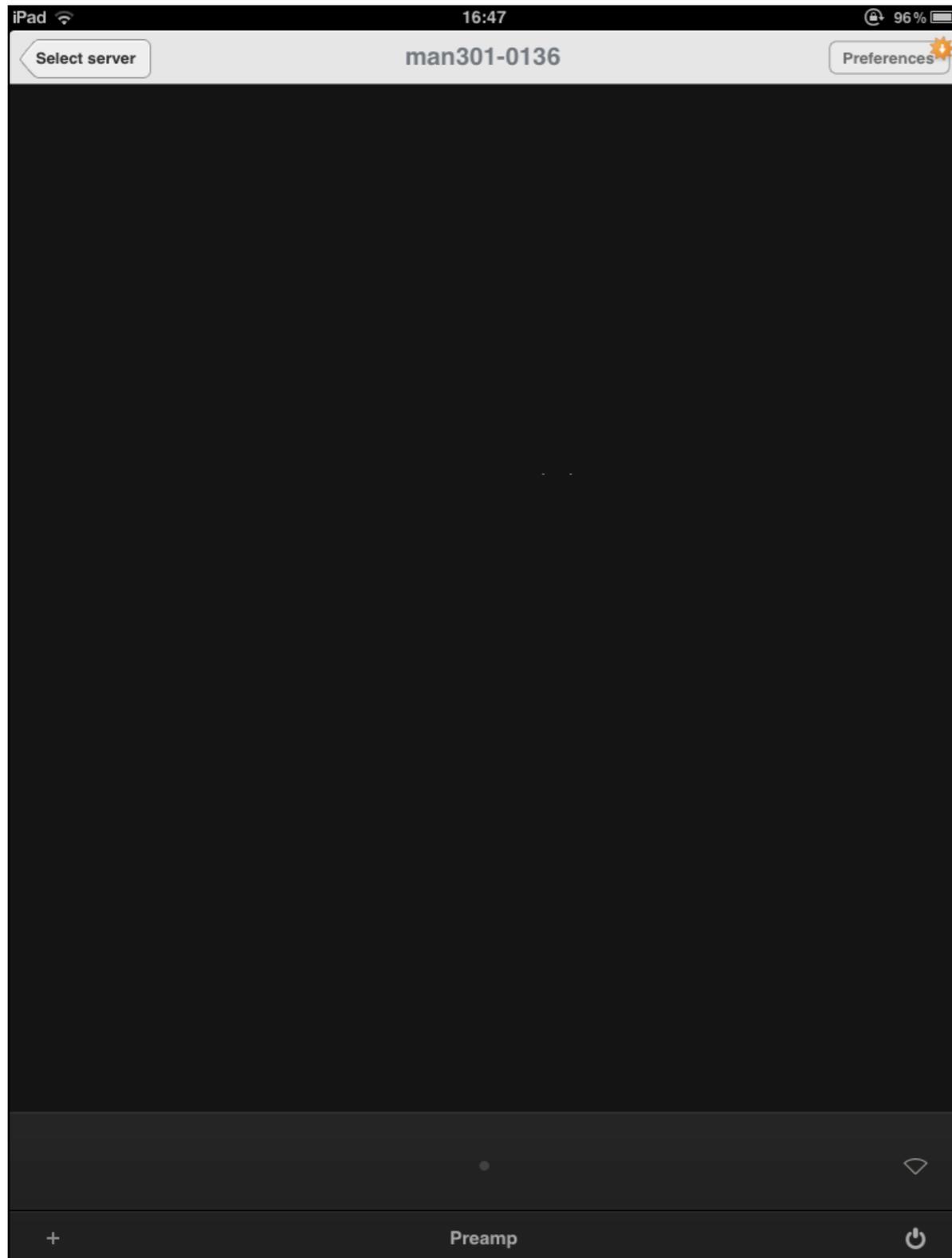
If you tap on the  pad the following screen shows up:



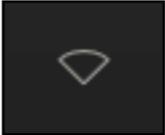
This shows the current version of the „Weiss MAN Frontend“ (this is the Weiss MAN app). You may also chose to automatically submit any crash reports of the Weiss MAN app to us at Weiss Engineering. These reports do not contain any personal data from your iPad, they contain data from the Weiss MAN app at the time of the app crashing and thus help us to solve the problem which has led to the crash. We suggest to allow your Weiss MAN app to send that information to us.

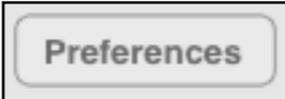
Now tap on the MAN301 symbol to select that unit for playback etc.

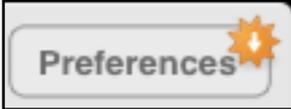
This will show an empty screen like this:



The shut down pad  in the lower right corner lets you switch off the MAN301 from within the app, switching on the MAN301 has to be done via its front panel switch though.

The  indicator in the lower right shows whether there is any uplink to a WiFi network active. In Configuration 5 the uplink will not be activated.

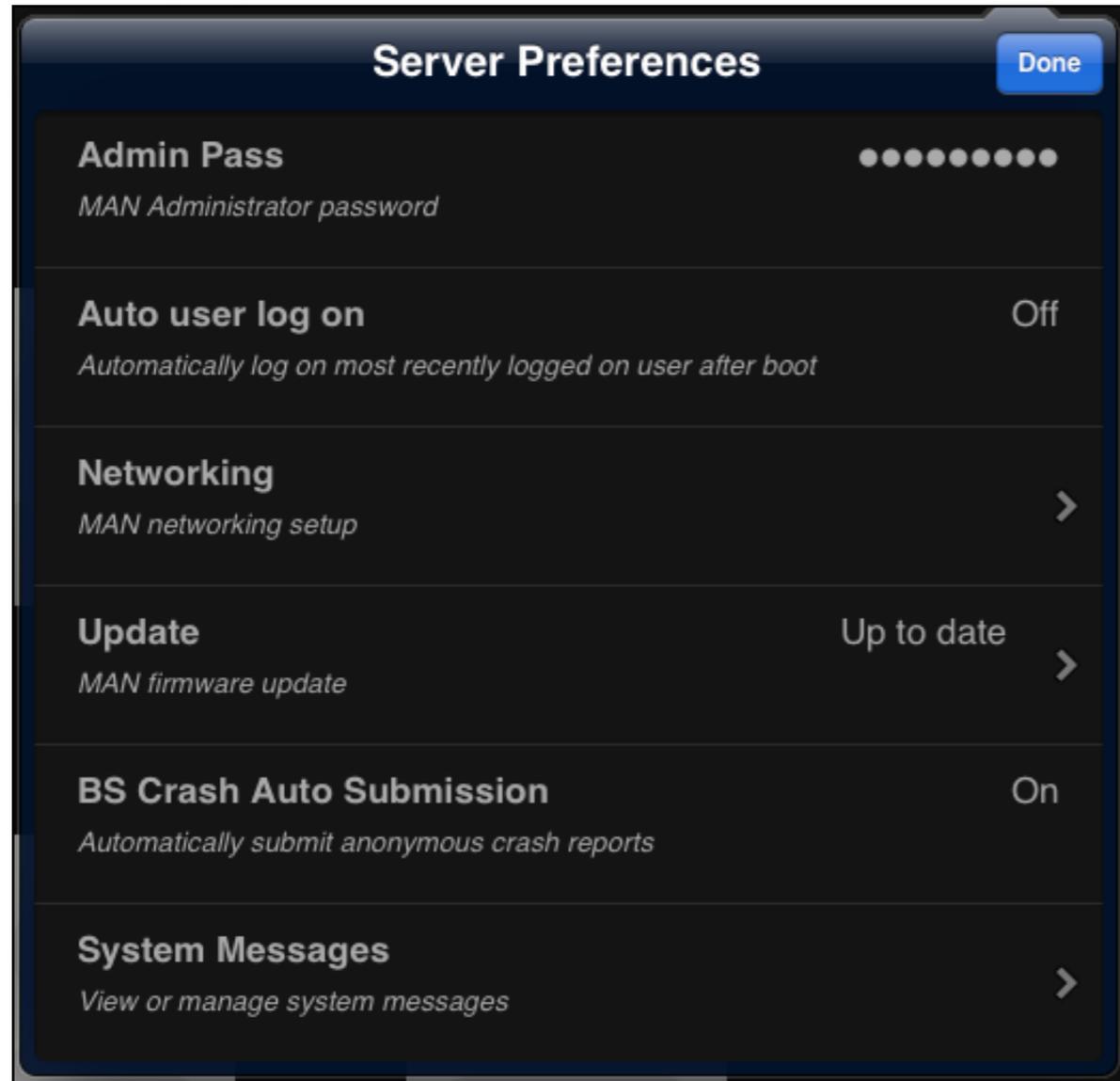
The  pad enters a setup page for a few very basic setup items.

If the Preferences pad looks like this:  then there is a new firmware for the MAN301 available for download.

Tap on the Preferences pad and then enter the Admin password which is wh10admin.

**NOTE: MAN301 Admin default password: wh10admin**

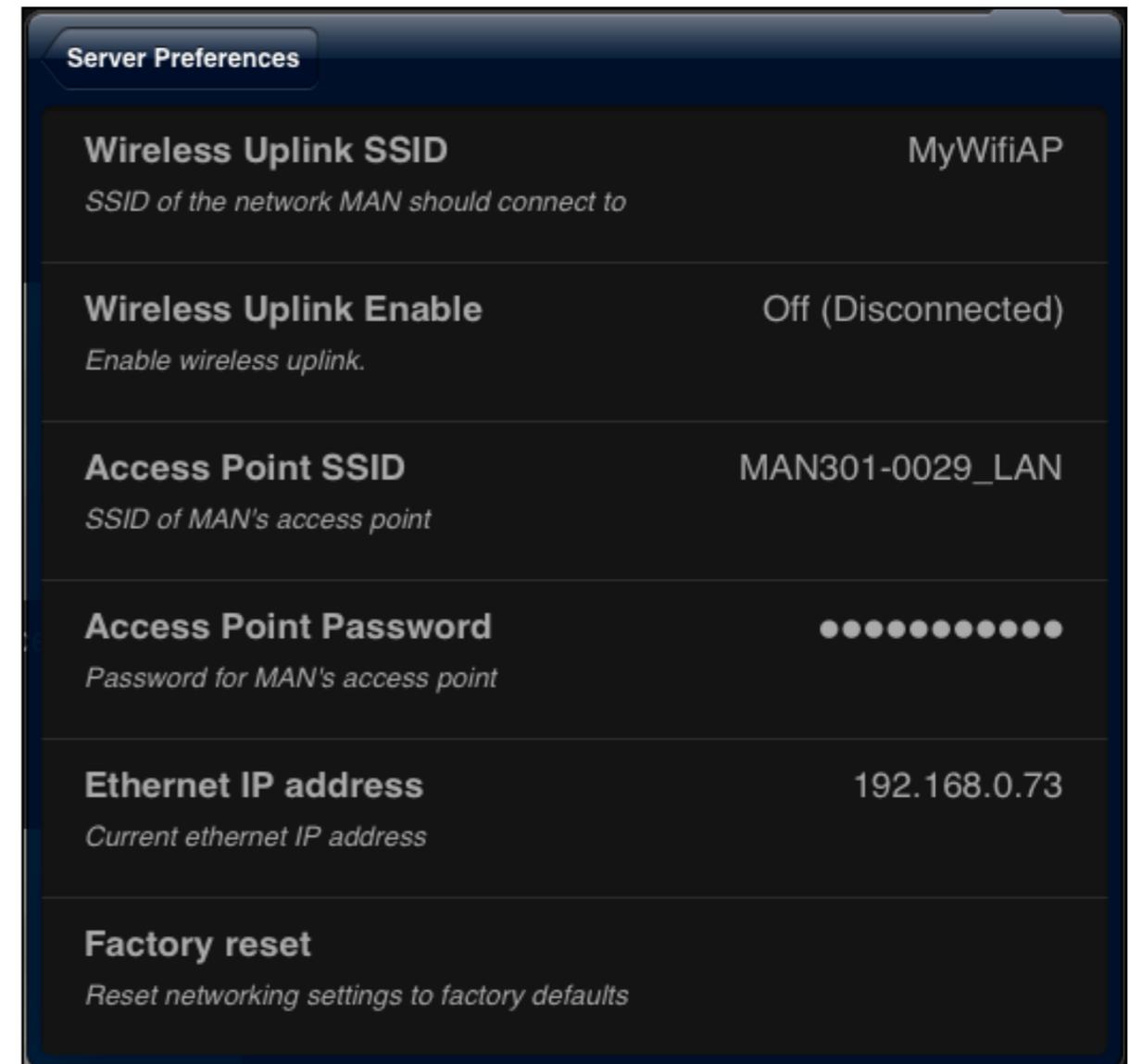
This brings up a screen as follows:



- The „**Admin Pass**” lets you select a different administrator password.
- The „**Auto user log on**” allows to set the MAN301 such that it logs on the most recent user automatically. This comes handy if there is only one user set up. The main advantage is, that the library / playlist display is refreshing quicker if auto user log on

is enabled.

- The „**Networking**” entry allows to set up the MAN301 depending on the system architecture you have chosen in Section 2. Tapping on Networking reveals this page:

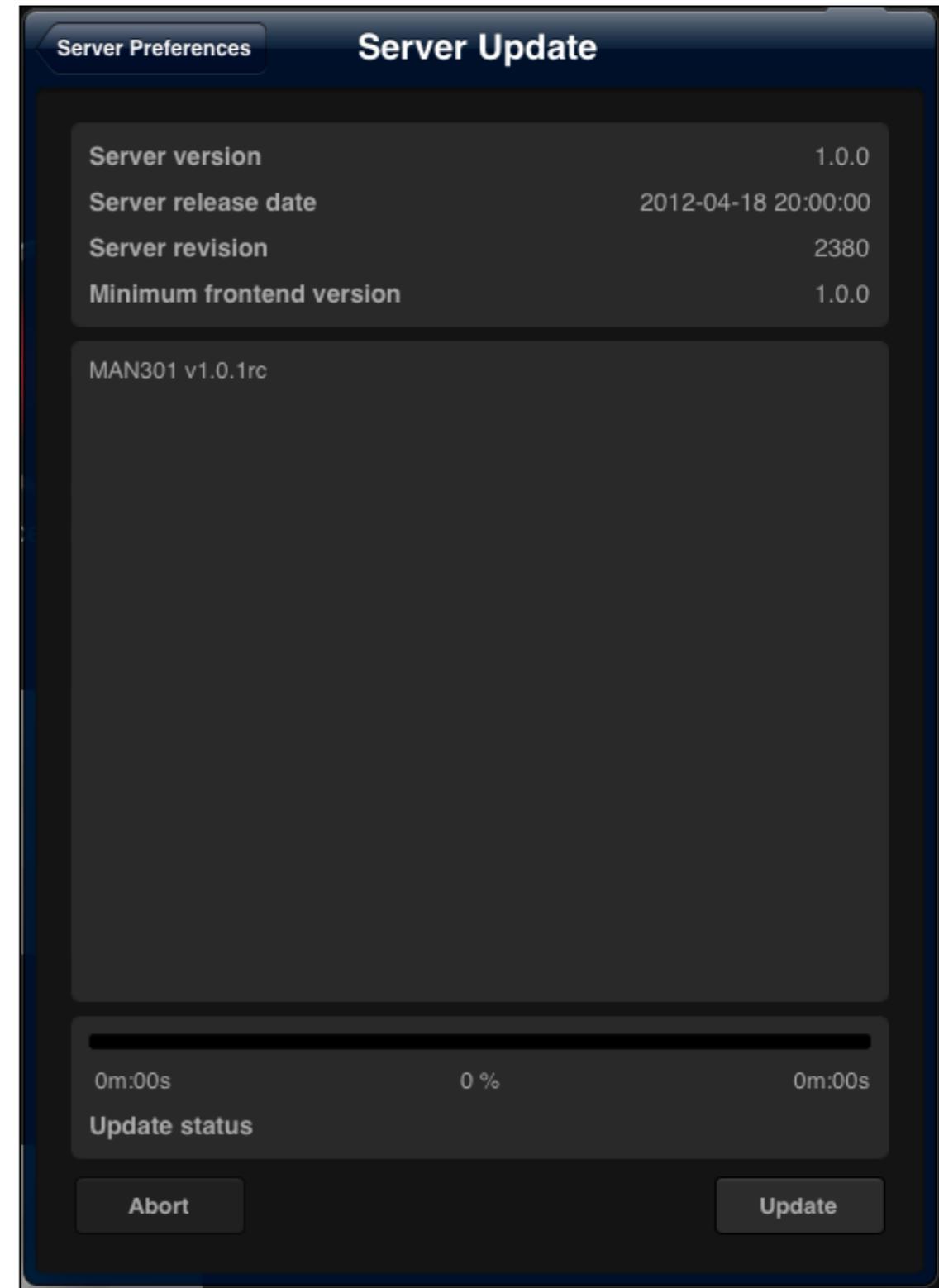


Usually you do not need to change anything on this page. The Wireless Uplink is disabled in Configuration 5, it does not need to be enabled.

Here are the details to this page:

1. The „Wireless Uplink” entries are explained in the sections where the Configurations with Uplink enabled are described.
2. The „Access Point” entries show the SSID and password of the MAN301 access point. Both SSID and password can be changed if preferred.
3. The „Ethernet IP address” shows the IP address the MAN301 has got from the DHCP server. In Configuration 5 the MAN301 enables its own DHCP server to supply the NAS with an appropriate IP address.
4. The „factory reset” resets all network settings to the original settings when the MAN301 left the factory.

The next entry in the Server Preferences is the „Update” pad. Tapping on it reveals a screen similar to this:

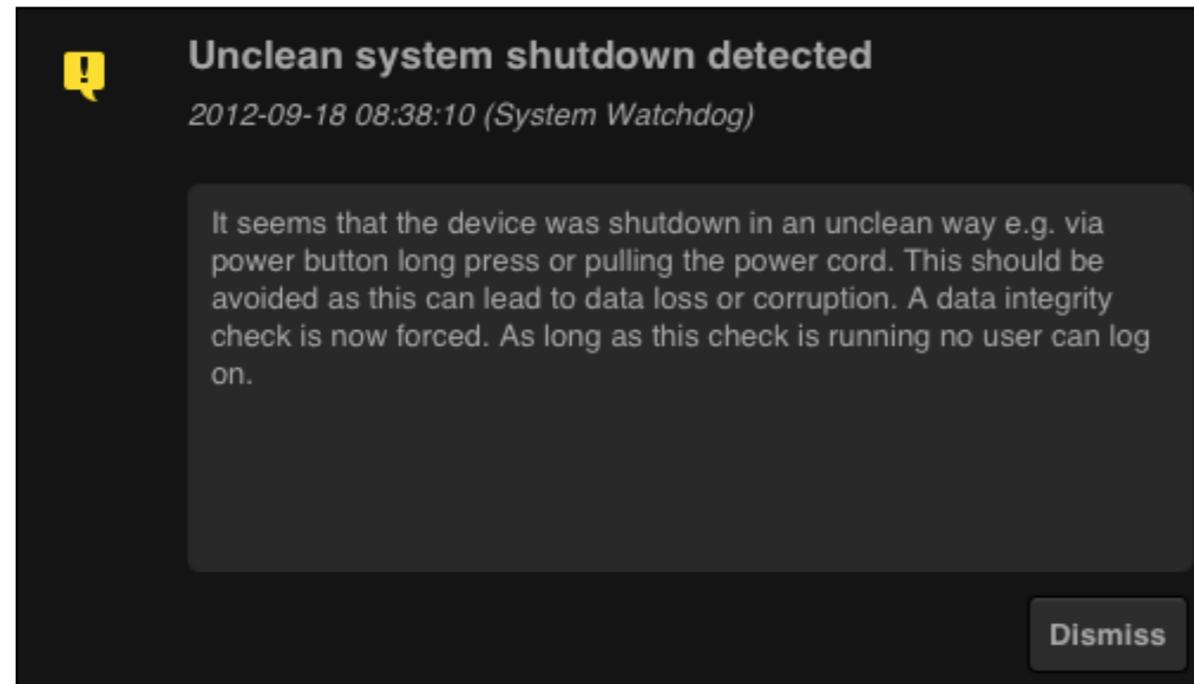


This allows you to update the MAN301 software via a download from the Weiss server. See Chapter 6, Section 1 for details. Do not proceed with updating before you have read Chapter 6, Section 1.

The next entry in the server Preferences is the „**BS Crash Auto Submission**“.

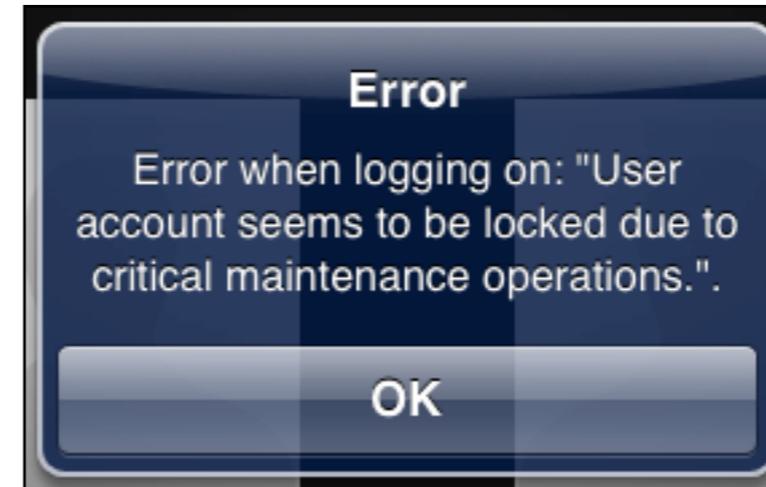
This allows the BS (Base Station = MAN301) to report any program bugs to us at Weiss. These reports do not contain any personal data from your iPad or MAN301, they contain data from the MAN301 at the time of the occurrence of the software crashing and thus help us to solve the problem which has led to the crash. We suggest to allow your Weiss MAN app to send that information to us.

The last entry is the „**System Messages**“, where system messages are shown in case there was a severe error detected. Such a message can look like this:

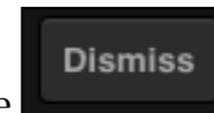


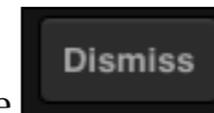
In this case the MAN301 was not closed properly and thus the databases may be corrupted. The MAN301 then restores the data bases.

No user can log in until the databases are restored. The restoring process may take a few minutes. If an attempt to log in is made before the restoring has finished, this message is shown:



Simply wait and try again later.



The  pad allows to delete the system message.

Now that we have done the basic system configuration, user accounts can be added. This is described in Section 7.

# User Accounts

Several MAN301 units can be connected to a network. I.e. the NAS unit(s) can be shared by all the MAN301 on the network. Upon launching of the Weiss MAN iPad app, all the MAN301 units available are shown. Anyone can then be selected to be controlled from the iPad. Each MAN301 unit can have its own set of users with their individual libraries and / or their individual NAS units. Here are a few scenarios on how such setups could work:

**A)** There is a single MAN301 unit, each family member has his / her account, the music on the NAS is in a single library which can be accessed by all family members, the family members generate their individual playlists out of the single library.

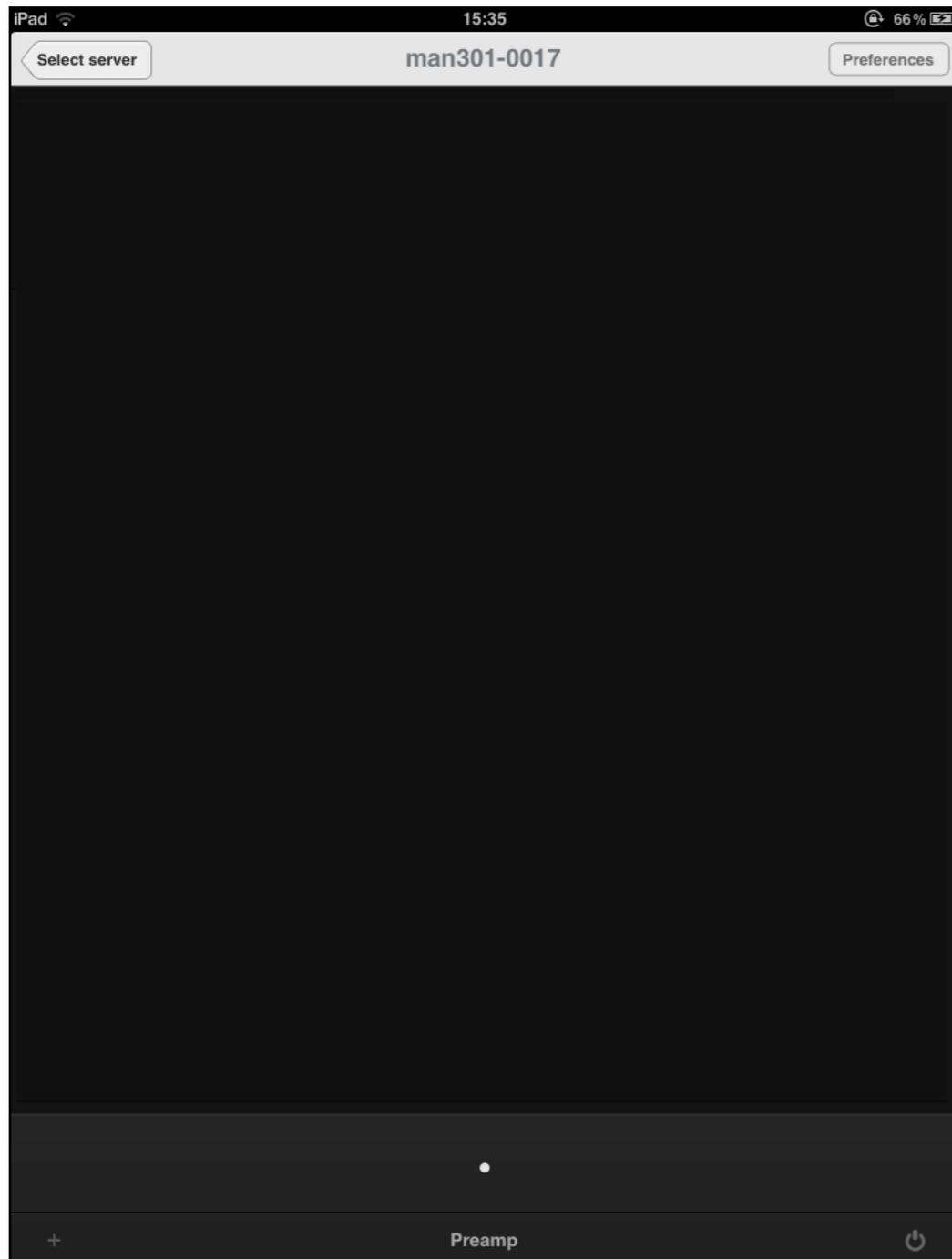
**B)** There is a single MAN301 unit, each family member has his / her account, the music on the NAS is put in different folders, e.g. one folder per family member. This would make sure that the father's huge classical music collection would not show up in the library of the son who happens to be a hip-hop fan. Still, any family member could add the folders of other members to his / her library, i.e. the father could still enjoy the son's hip-hop music by adding the son's folder to his library.

**C)** There are more than one MAN301 unit, the same scenarios as depicted above apply with the difference that family members can enjoy their own music selection at any time.

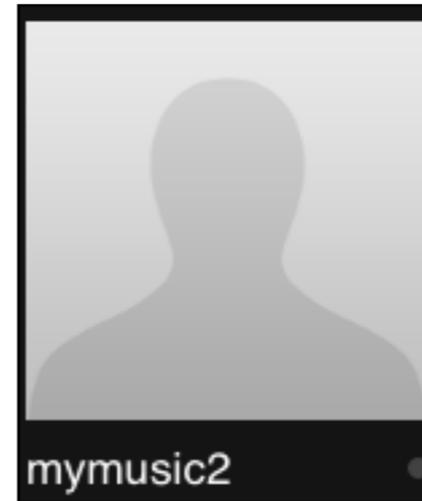
As mentioned above, the MAN301 supports several user accounts, i.e. is multi user capable. This results in interesting advantages / features like:

- All users may have their own individual library, playlists, searches etc. independent from other users. They even can use different NAS units.
- Users can have different rights for the music library, e.g. a „party guest“ or „kids“ account can be denied to have the right to erase files. These rights are set up via specific user accounts on the NAS unit(s).
- An user account can also be used to divide the music library into various sub libraries, e.g. one could set up a user „classical“ which means that the library of that user is made up of all the classical music on the NAS. Another user could be named „pop“ etc. Such a strategy can be useful for very large music collections where the library browsing could become impractical. The files on the NAS would then have to be organized accordingly, e.g. the folder „classical“ would hold all the classical music. Or one could even use separate NAS units for different music styles.

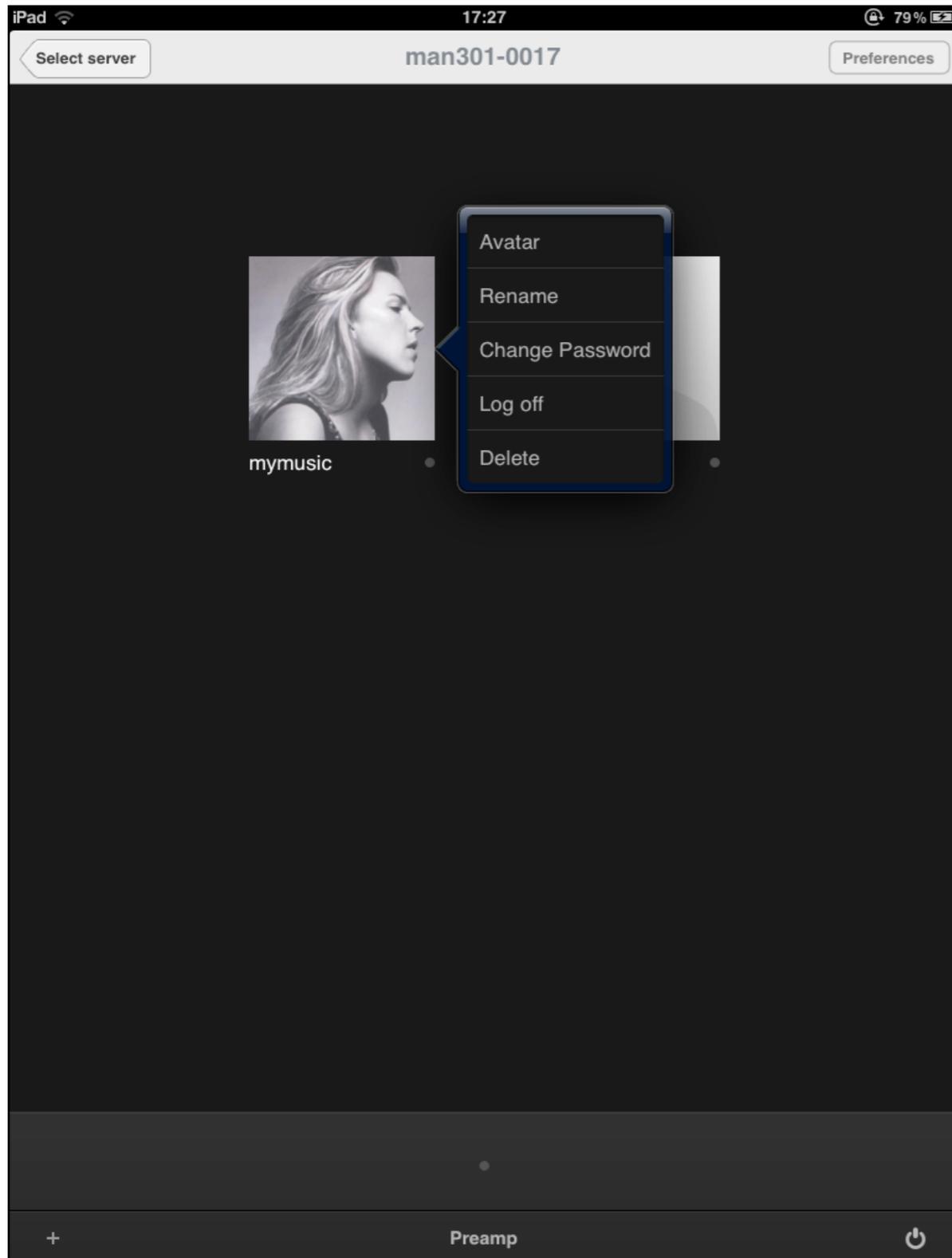
- To set up a user, navigate back to the empty screen:



and tap on the  pad in the lower left corner. This opens a window where you can enter a user name and user password for a new user. The default Admin password is wh10admin. After you have added the user, a default Avatar (picture):



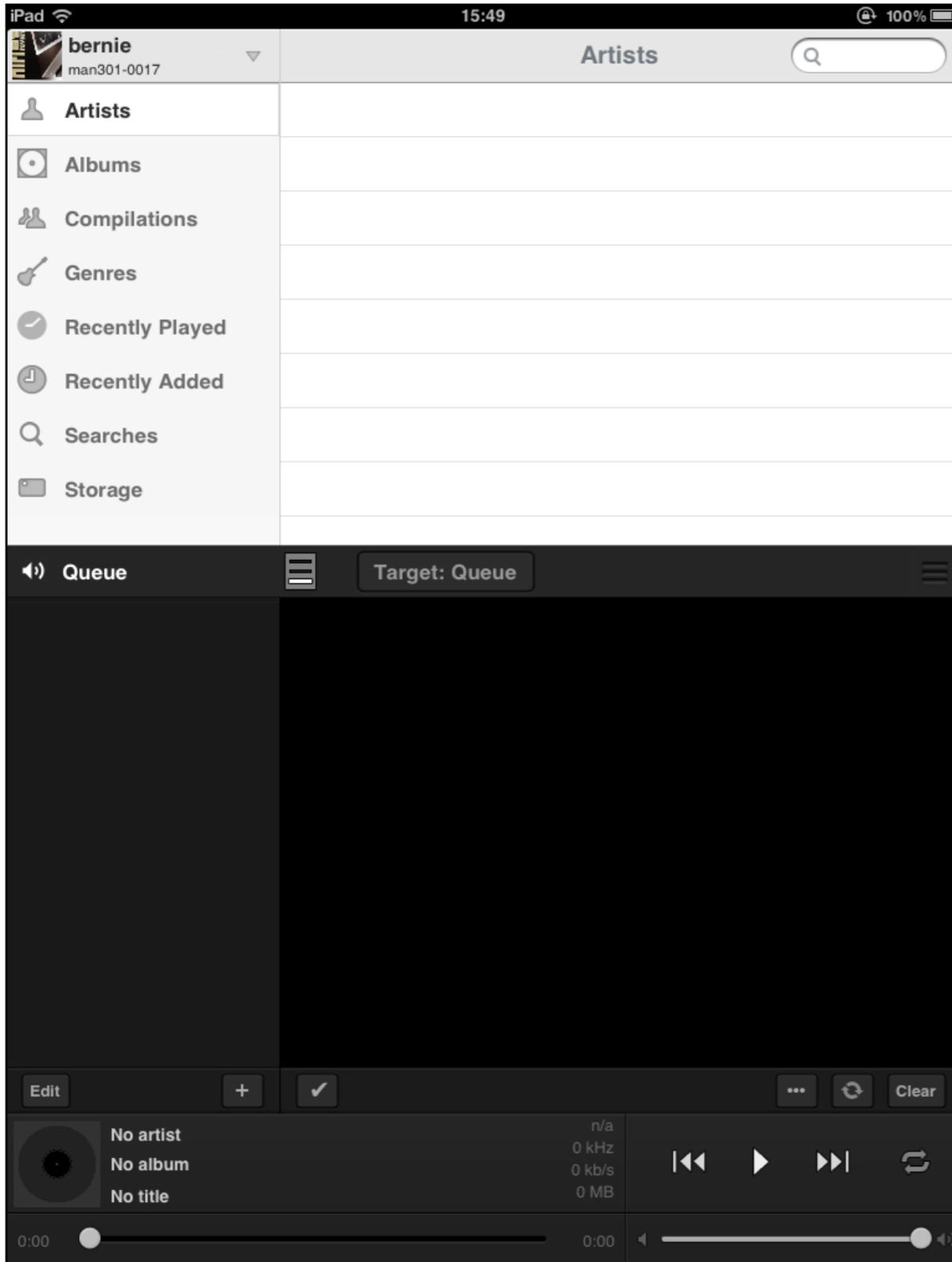
along with the user name you have selected is shown. You may add more users any time and also change the user settings at any time. To change the settings tap and hold on the Avatar. A screen like this is shown (note the Avatar in this example has already been changed)



Selecting Avatar from the menu lets you change the picture, you can select one from your photo roll of the iPad and then scale it such that it fits into the Avatar picture size. If there are no photos in the photo roll then you may take some pictures with the built-in camera (not available on the first generation iPad). Those are automatically put into the photo roll. The other menu items are self-explanatory.

(Note: A user password can be changed by using that user's old password or by using the administrator password which is wh10admin by default.)

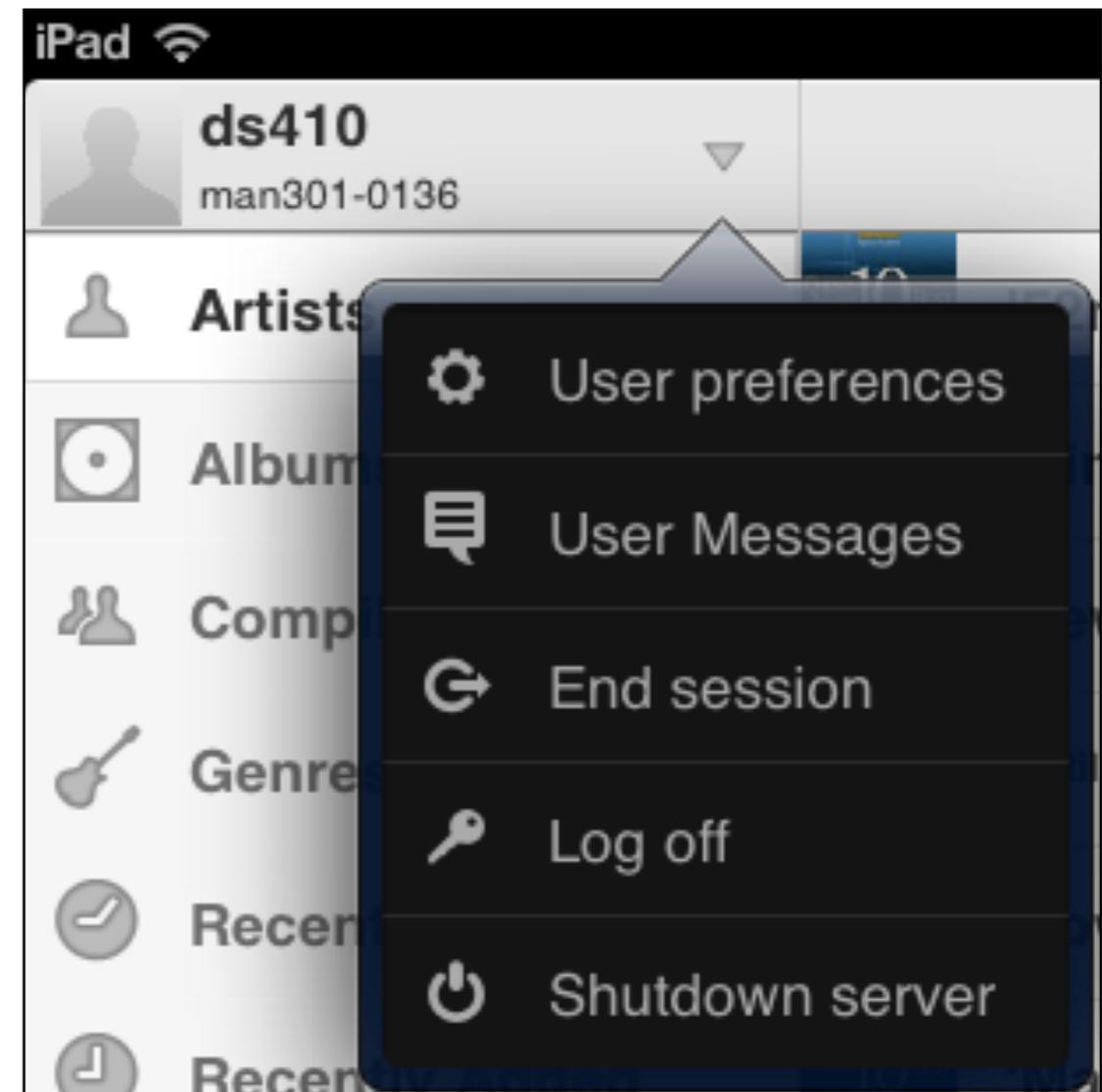
Now you are ready to log onto the MAN301 by tapping on the Avatar. At first a screen like this appears:



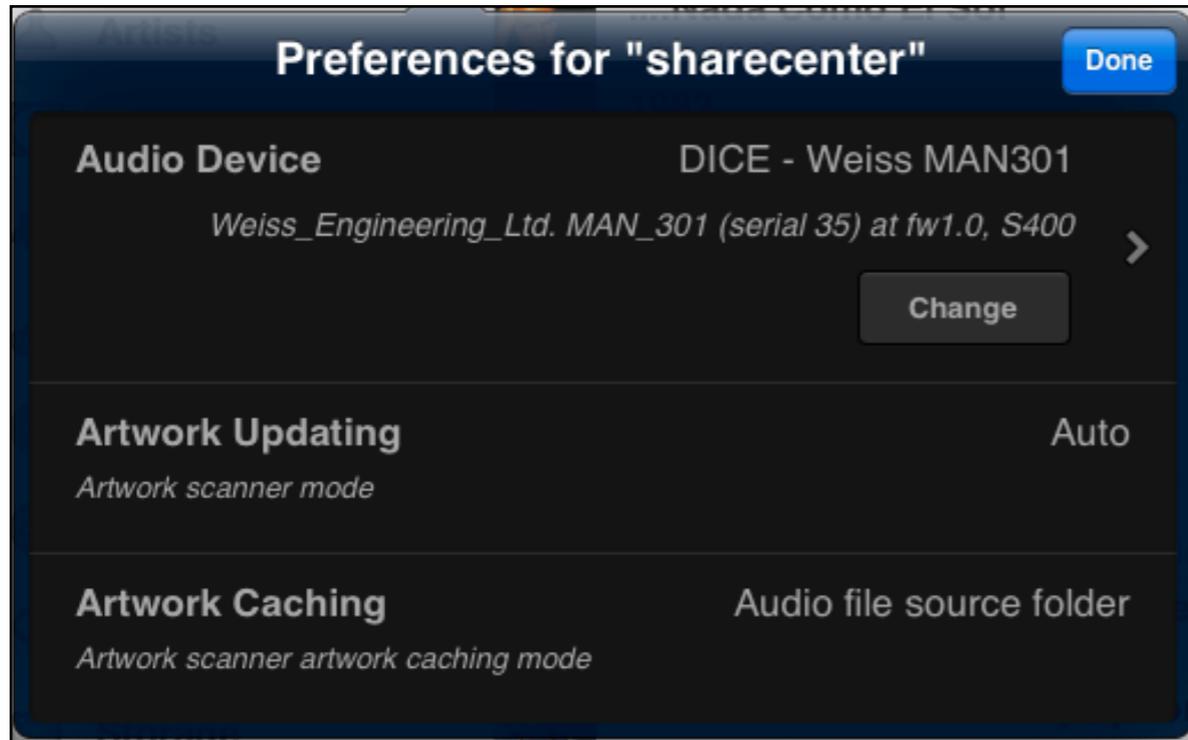
If you tap on the arrow in the upper left corner:



a menu like this opens up:



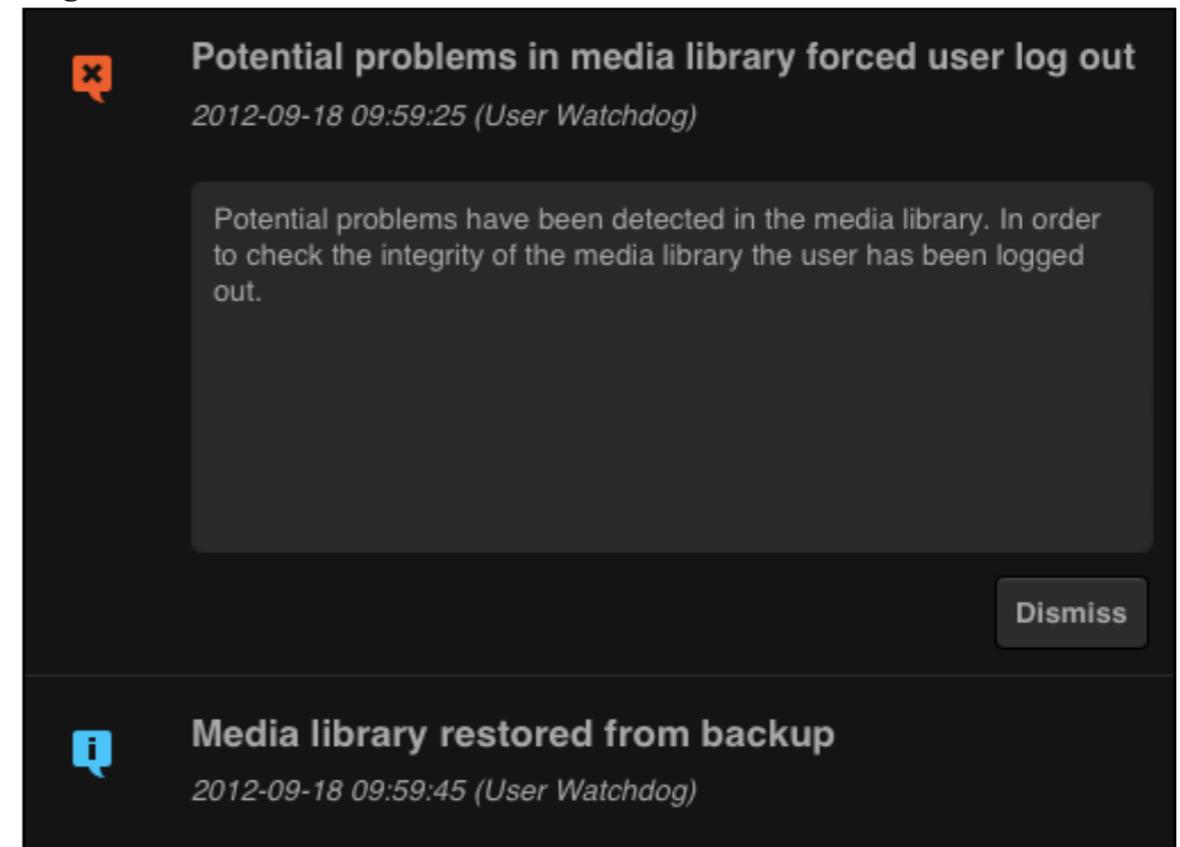
- „User preferences“ reveal a screen like this.



1. The „Audio Device“ settings are described in Chapter 3.
2. The „Artwork Updating“ allows to set whether the CD cover artwork is scanned automatically or manually or is switched off entirely. „Auto“ means that the MAN301 is searching for artwork of the whole library automatically if it finds CD files with the artwork lacking. „Manual“ means that the artwork is only searched for if that CD is being played and it does not have any artwork stored yet. Currently artwork updating is fixed at „Auto“.

3. The „Artwork Caching“ allows to select if and where and whether the CD cover artwork is stored, in addition to the normal storage of the artwork. Storing (caching) the artwork has the advantage that if a new user account is added the artwork does not have to be refetched anew. The recommended setting is „Audio file source folder“. Currently artwork caching is fixed at „Audio file source folder“

- The „User Messages“ allows to view user specific error messages, for instance if some error with the library happened a message could look like this:



- The „Dismiss“ pad allows to clear the „Potential problem...“ information and then leaves the „Media library restored from backup“ message like this:



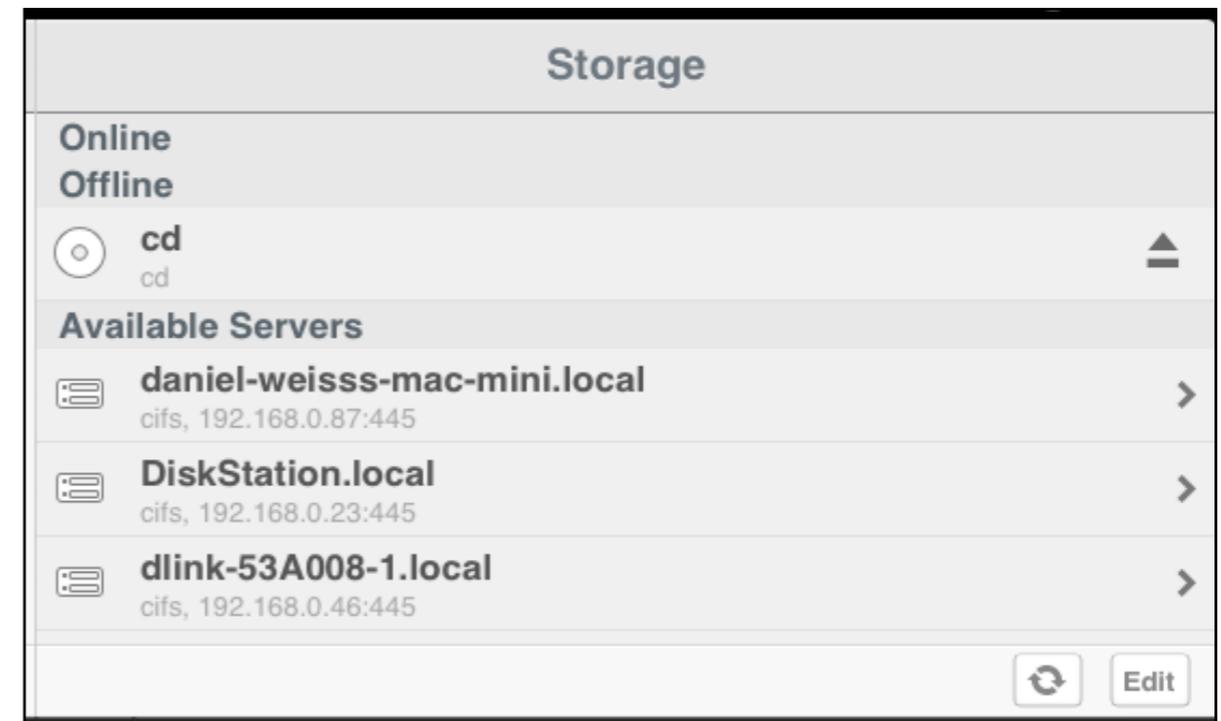
- Again, use the „Dismiss“ pad to clear the message.

If all is ok, the „User Messages“ window is just empty.

- „End session“ leaves the library screen, but the user stays logged in and the music keeps playing. This is useful e.g. if a user would like to log onto a different MAN301 without stopping the playback.
- „Log off“, stops the music playing and logs off the user
- „Shutdown server“, stops the music playing, logs the user off and switches off the MAN301 unit in use. The MAN301 has to be switched on again via the power switch on the front panel, it can not be switched on via the Weiss MAN app.  
The switch on the MAN301’s front panel has the same effect.

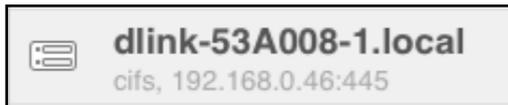
The next step now is to mount the NAS (Network Attached Storage) unit. The NAS holds the music files. An alternative to the NAS would be e.g. a USB hard disk connected via USB to the MAN301. We highly recommend to use a NAS unit, though, with 2 or more drives for data safety. Also see Chapter 5.

For that purpose tap on the  **Storage** pad, this will show a screen like this:

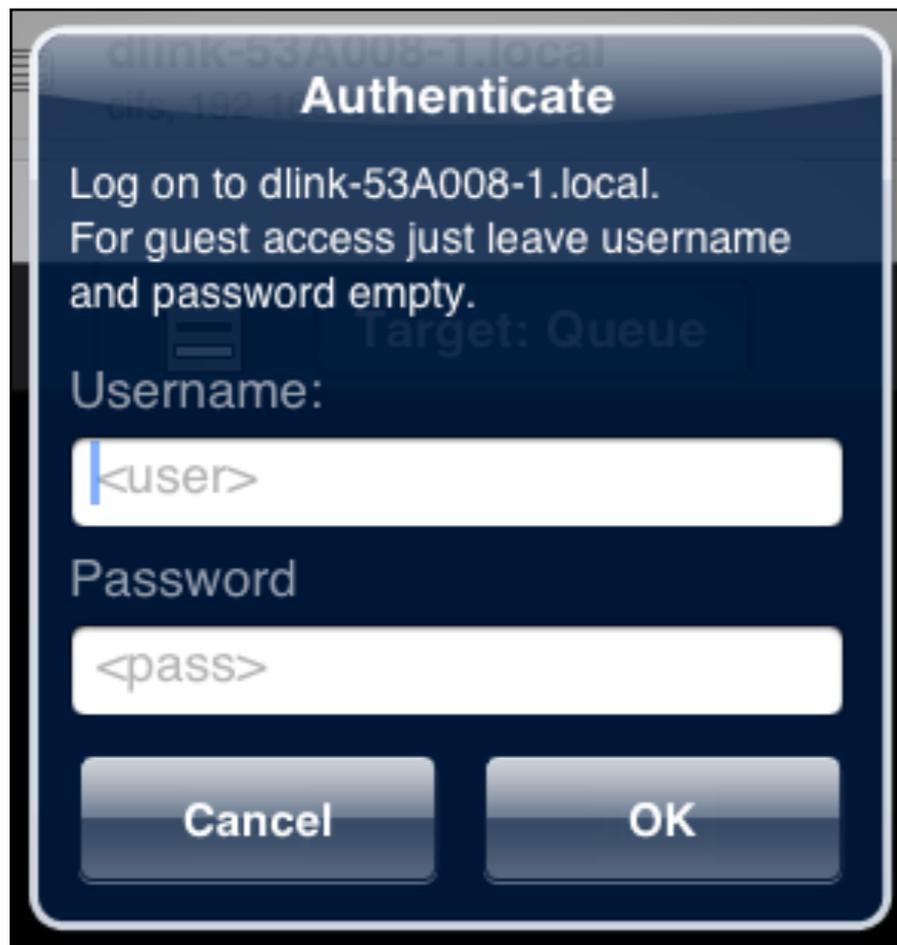


The „Available Servers“ entries in the list will look differently, as they show the NAS, computers etc. on your network and it also shows any USB or FireWire drive you may have connected. To re-fetch the list or if your NAS does not appear press on the





The entry in this example is a NAS. If I tap on it, a window opens:



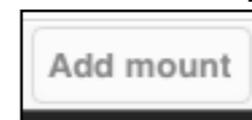
Here you enter the username / password required by your NAS in order to access the files on it. If there is a guest account available on your NAS you may use that by leaving both username and password empty.

Note, a NAS may require a separate setup procedure before it is ready to be used as a storage medium for your music files. This pro-

cedure is described in the operating manual for your NAS. Usually there are a lot of different items which can be managed with a NAS, but for the purpose of using the NAS as a storage medium for the MAN301 typically only a few basic settings need to be done:

- The **IP address** shall be supplied by the DHCP server in the network, i.e. set „DHCP = Yes“.
- If the NAS has 2 or more hard discs, then it usually comes pre-configured as a RAID array for best data security. Check whether this is really the case with your NAS. Otherwise you need to specify what kind of array it should build. Also see Chapter 5.
- Usually you do not need to set up user accounts on your music NAS except you want to prevent other people to access your music. So usually you may set up a share folder for your music to be put in. The MAN301 then does not need any username / password to access the data (see lefthand side on that screen).
- The power management you may also want to check. The NAS may switch off itself when not in use - this poses no problem to the MAN301, as it will wake up the NAS when required.
- You may also configure a backup procedure for your NAS.

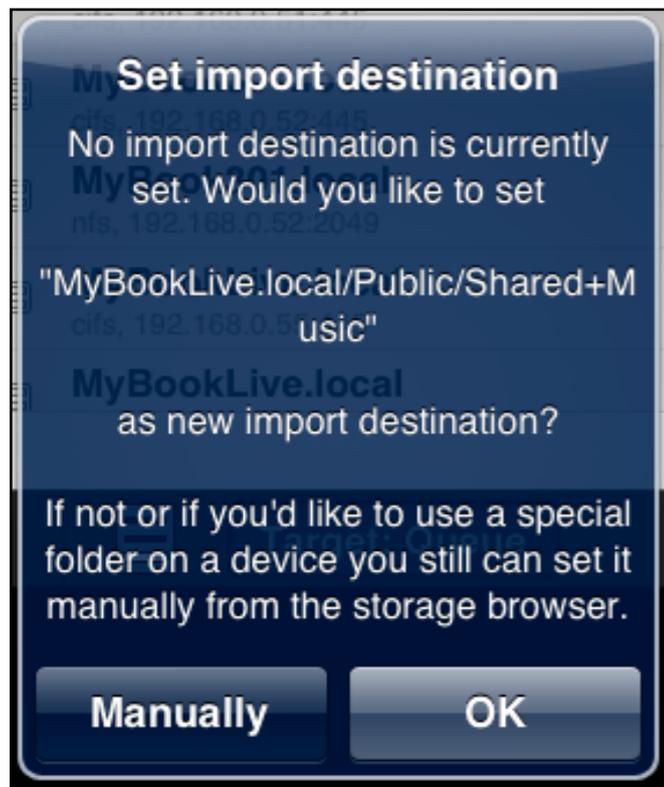
Once access to the NAS is gained, the folder structure on the NAS is displayed. Navigate to the folder which holds your music, say this folder is called MYMUSIC, then tap on MYMUSIC and now the folders (typically the artist folders) are shown. Tap on the



pad to add the MYMUSIC folder to the Music Library. Of course it is possible to add just a selection of folders or just the „classical music“ folder on your NAS etc.

You may also add several different folders on a NAS in several „Add mount“ procedures. This allows to assemble the music added to the library for a given user. Of course in such a case the music files have to be organized in an appropriate way on the NAS. For instance it would allow to have folders for different music genres and each family member adds the folders of interest to his or her MAN301 user account. It is also possible to mount several different NAS units. This allows to add more NAS units in case you run out of space, making the system virtually unlimited in terms of storage space.

After tapping the „Add mount“ pad after a short while a screen similar to this shows up:



This question refers to the folder where newly ripped CDs should be put. Usually this is the folder you just did an „Add mount“ for, so press OK if that is the case.

In the Available Servers list above there is also a MAC Mini unit. It would be possible to share music files on that computer on the network and access them from within the MAN301 (this feature is not yet available for OSX 10.7 (Lion) or 10.8).

If there are two NAS entries with the same NAS name, select the one which has a „cifs“ in the second line of the entry.

Once the NAS is mounted it appears in the „Online“ list:



In the entry of the Online NAS the size of the folder mounted is given, along with the total size of the NAS. In addition the IP ad-

dress of that NAS on the network (192.168.0.46 in that case) and the path of the folder mounted are given.

The cd drive shown in the list is the CD drive of the MAN301. Once a CD is inserted, this drive goes online. More about this in a later chapter.

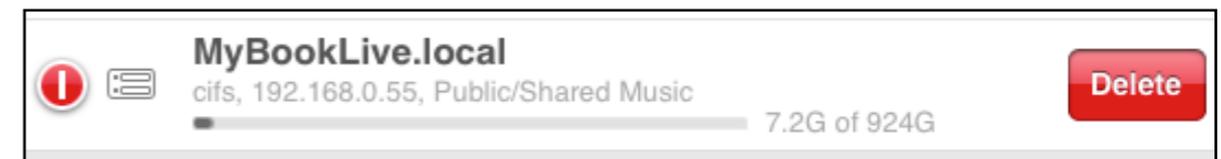
If I tap on the dlink-53A008-1 NAS which is online, I can browse the folders on that NAS and also play tracks directly from within the folders. It is also possible to browse NAS units which are on the network, but not mounted.

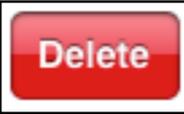
If you would like to dismount a NAS or a folder on a NAS from the list of online NAS units you may do so with the  pad.

Tapping on the  pad reveals a screen entry like:



The entry with the  can be removed from the list by tapping on the  pad, this yields to this screen:



Tapping on  removes that NAS from the list. Note, that no files whatsoever are erased from the NAS by doing that, it is just removed from the list of mounted NAS units. Also note that the NAS holding the ripping destination folder cannot be re-

moved. If you would like to start over with a clean slate then remove that user's account completely (delete the user on the page where the user Avatars are shown) and set up a new user account.

**Now the basic setup is done. The MAN301 now scans the NAS and adds all tracks etc. to its library. This may take some time, minutes up to hours, depending on the size of your music collection. You can play tracks which are already visible in the library right away, but be aware that the reaction of the system is slow during the setup of the library. Also at first it takes some time until the first albums / artists appear in the Library.**

**See Chapter 2 for ongoing information on the Library, Playlists etc.**

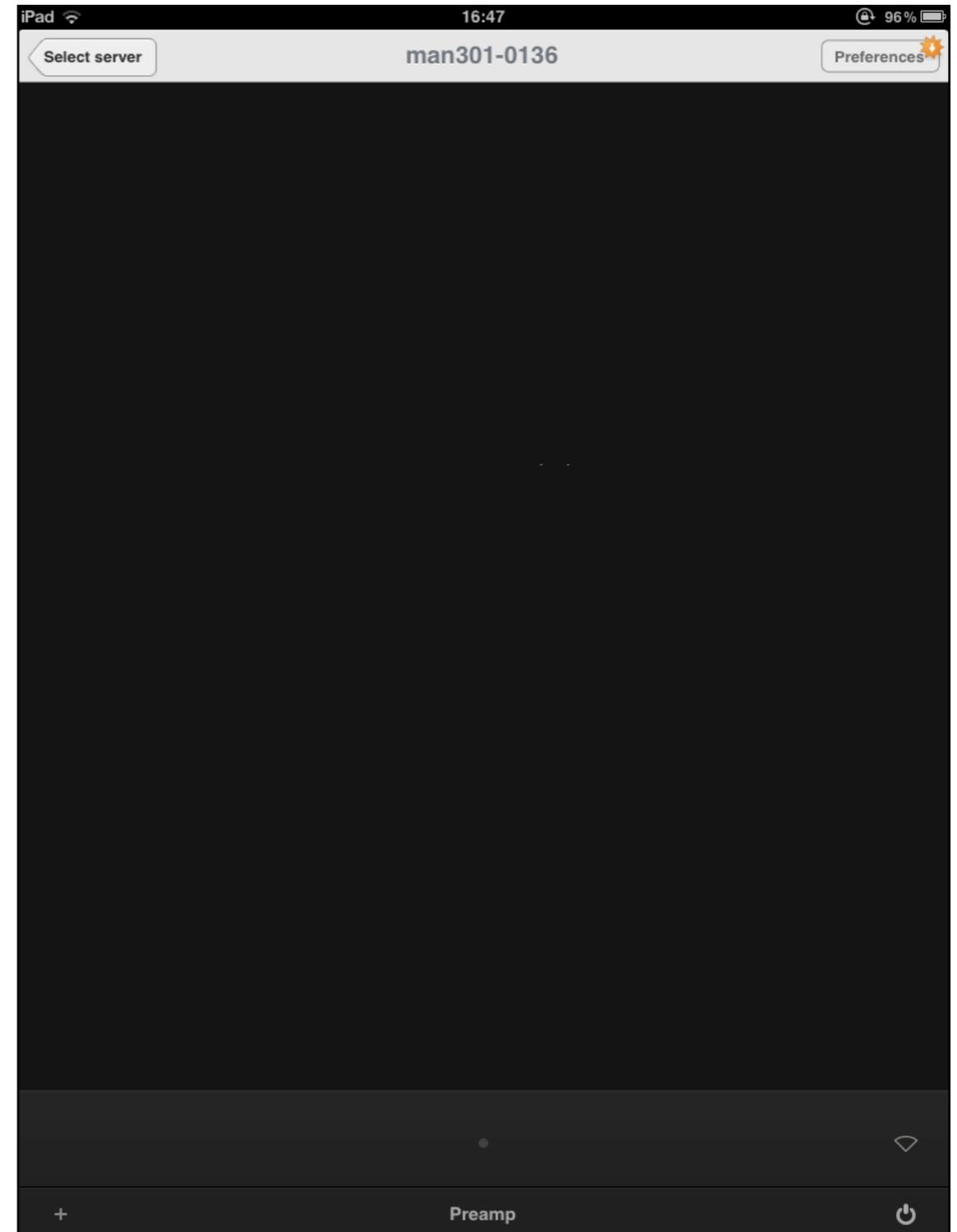
# Pre-amplifier Mode

The MAN301 is operated in two different modes, the pre-amplifier mode where the various digital inputs can be selected for routing to the various digital (and analog, optionally) outputs. And the network player mode where the music library on the NAS is played.

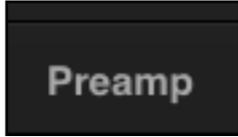
In the pre-amplifier mode the MAN301 can be set up as a D/A Converter for various digital inputs or simply as a digital volume control between inputs and outputs.

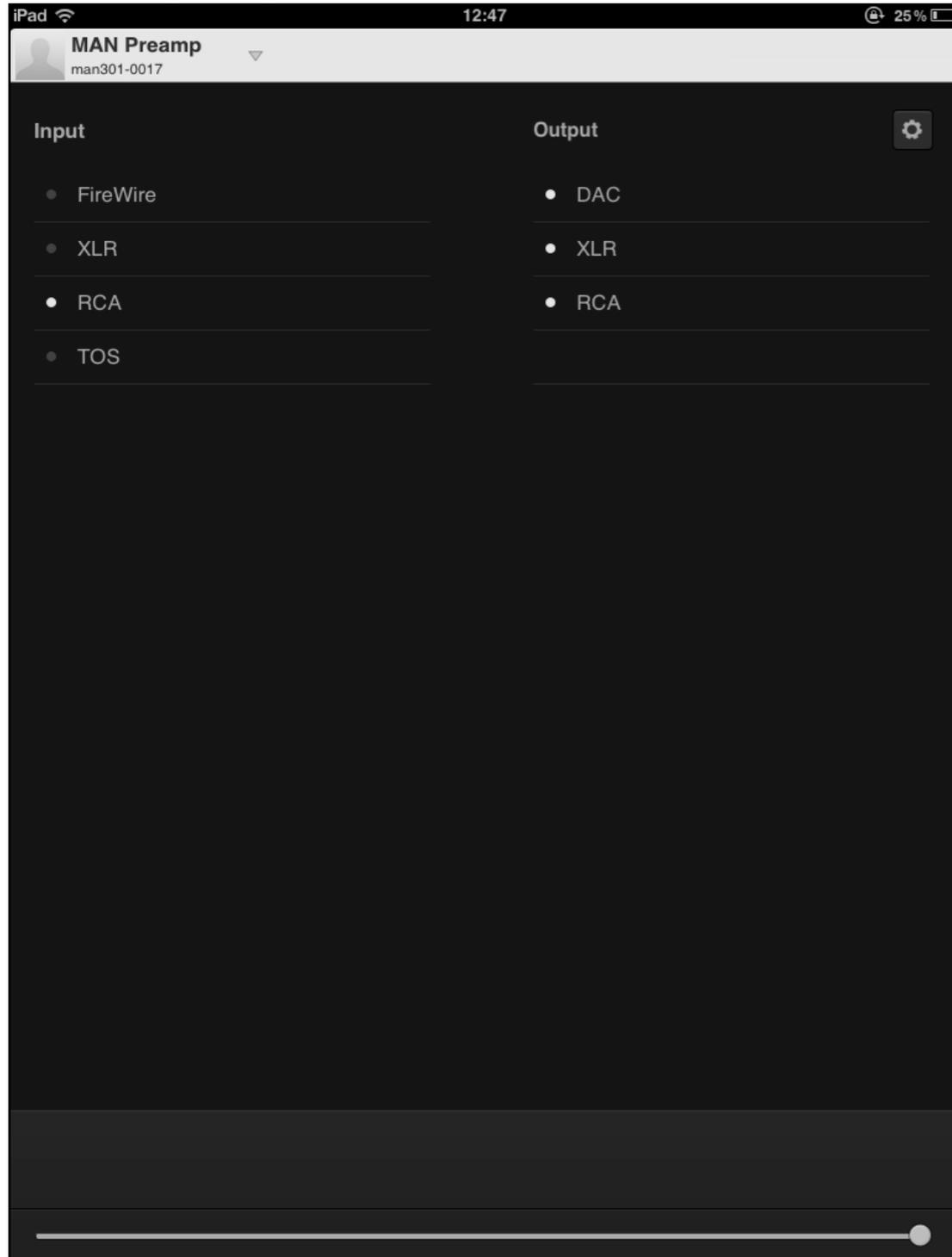
The network player mode is active when a user is logged in.

This means the pre-amplifier mode can be used without installing any NAS or network or setting up a user account.



Preamp

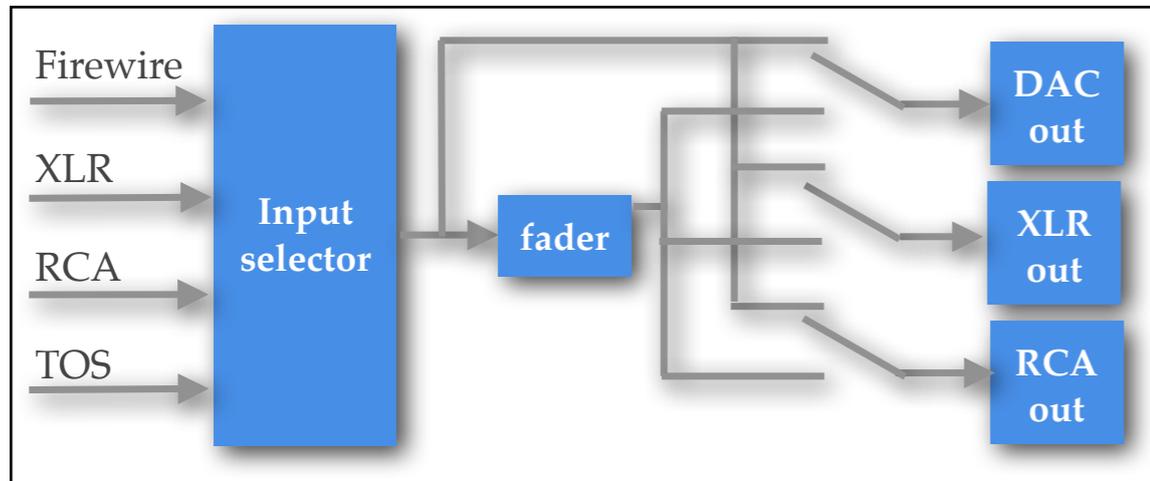
Tapping on the  pad on the bottom of the main screen enters the preamp mode:



On the lefthand side the input to the MAN301 can be selected. In the example above the RCA input (S/PDIF) is selected. The input sockets can be found on the back of the MAN301 unit. Other inputs are AES/EBU on XLR, S/PDIF on Toslink (TOS) or a computer can be connected via FireWire to play back the files stored on the computer via the MAN301's D/A Converter and digital outputs. The computer requires to have the Weiss Firewire driver installed for that purpose. Note, if you would like to include the music files stored on your computer for playback via the MAN301 then it makes sense to either mount the music folder on the computer into the MAN301 library (see Section 4 of this chapter) or to copy the music from your computer to the NAS. The playback from computer via FireWire through the MAN301 is a bit exotic, but we included this feature to offer as many playback options as possible.

On the righthand side the outputs which should be active can be selected. The appropriate output sockets can be found on the back of the MAN301 unit. The DAC entry is not shown if the MAN301 does not have the internal D/A Converter installed. (The internal D/A Converter is an option).

At the bottom there is the **fader** for digital volume control of the various outputs. The signal path in the Pre-amplifier mode looks like this:



The „fader” box is the large fader at the bottom of the Pre-amplifier screen. For each output this fader can be individually enabled or disabled.

The DAC output in addition has an analog attenuator switch with 4 positions to accommodate for the amplifier sensitivity.

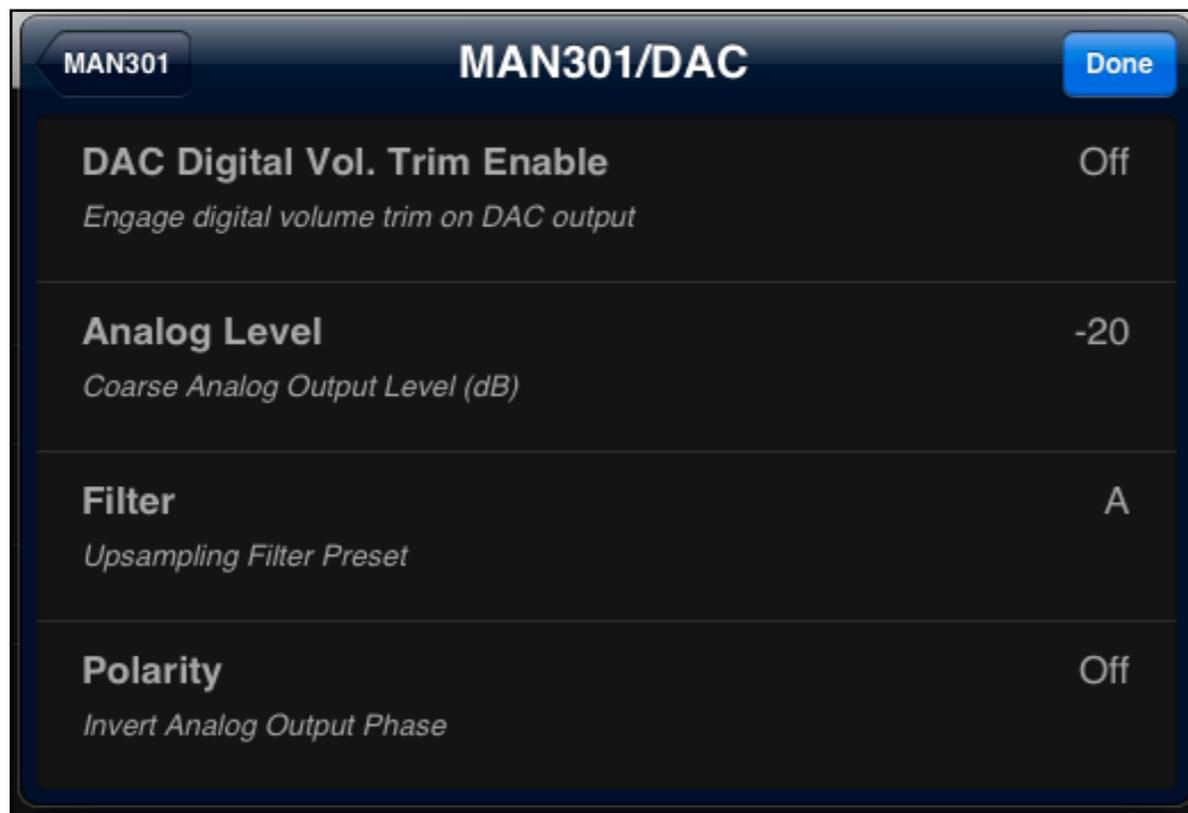
Tapping on the  pad leads to the setup screen:



- The „Dual Wire” pad allows to set the AES/EBU input / output of the MAN301 to dual wire mode. In this mode the XLR output becomes the left audio channel and the RCA output becomes the right channel. This mode is useful e.g. for older D/A Converters which support higher sampling rates in dual wire mode only. The dual wire mode (when selected) is active only for sampling rates of 176.4 kHz or 192 kHz. For all other sampling rates the MAN301 stays at **single wire** mode. Note that the input to the MAN301 is also in dual wire mode in that case. I.e. the left channel is connected to the XLR input, the right channel is connected to the RCA input. Select the XLR as the input source. The settings for the RCA output (i.e. the volume trim) are not relevant

in dual wire mode. The settings for the XLR output (volume trim) are relevant for both XLR and RCA outputs.

- The „DAC” pad enters the setup menu for the internal D/A Converter. If the MAN301 at hand is the „SERVER” version, i.e. does not have the D/A Converter installed, then this pad is not visible. Note, you always may upgrade such a MAN301 to the DAC version. The setup screen for the DAC:



- The „DAC Digital Vol. Trim Enable” controls whether the fader has any influence on the analog output. Note, this control does not have any influence on whether the fader in the network player mode has an influence. It controls the influence of the fader in the pre-amplifier mode only.

- The „Analog Level” control sets the analog output level of the D/A Converter in four steps ( 0, -10, -20, -30 dB). Set the analog output level such that the volume can be conveniently controlled with the digital faders. I.e. if the fader is set to the maximum, the volume should be at the maximum volume you care to listen at. Note, in the network player mode there is another set of controls (Analog Level etc.) which is independent of the controls in the pre-amplifier mode.
- The „Filter” control selects the oversampling filter type in the D/A Converter. The A type is a steeper filter with less aliasing effects and higher pre-echo while the B filter has a gentler slope with more aliasing and less pre-echo. Chose whichever filter you prefer.
- The „Polarity” allows to invert the polarity at the D/A Converter output. This can be handy if a recording does not sound „quite right” - it could be that the polarity of that recording is wrong.

The XLR (or RCA) pad reveals this screen:



It allows to enable / disable the volume control fader for the digital outputs on XLR and RCA respectively.

## CHAPTER 2

# Library, Playlists, Views

The music library holds all music files and presents them in an easily accessible way. Newly ripped or copied files are automatically added to the library.

Playlists are user defined extracts of the Library for quick access to those favorite tracks.



The Library View display shows a selection of the library as well as the Playlists for simple assembly and editing of Playlists and much more.

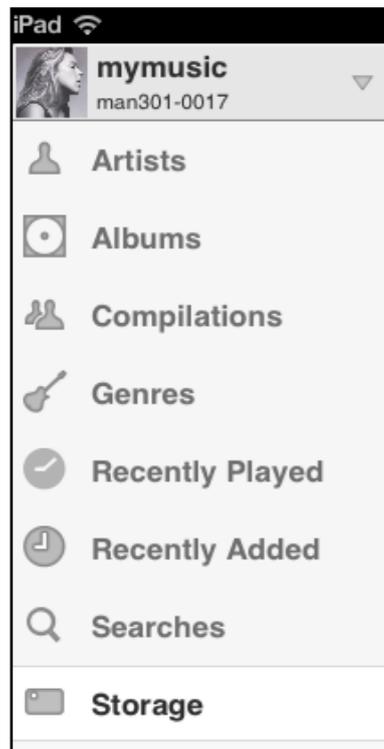
The Show View display presents the currently selected playlist and playing track in a big, nice picture.

# Library

As mentioned in the previous paragraph, the building of the library from the files on the NAS can take some time. With larger collections it is best to let the unit run through the night. During library building it can happen that the wrong album artwork is displayed. Don't worry, in the end it will all be fine. Also the response to player commands may be very slow - just wait until the library building process has finished.

Once this is the case, tap on the pads on the left hand side. At first it may take some time until the CDs are shown.

Note, the screen division between library (upper section) and playlists (lower section) can be moved by moving the black bar on top of the playlist section with your finger.



Here is a rundown of the available menu items:

- **Artists**, shows the library content sorted by artist names. Scroll through the list by swiping your finger vertically on the list or by tapping on the alphabet at the right hand edge. Tap on any of the names to show the CDs of that particular artist. Tap on any of the CDs to show the tracks of the CD. You may play back a track immediately by tapping on the cover artwork to the left of the track. That track is then put into the default „Queue“ playlist and playback starts immediately. The **Queue playlist** is the default playlist for immediate playback. It can not be erased. If you would like to add another track for subsequent playback

tap on the  pad at the righthand side of the track. This adds that track to the Queue. Tapping on the artwork replaces the Queue content with that track and starts playback.

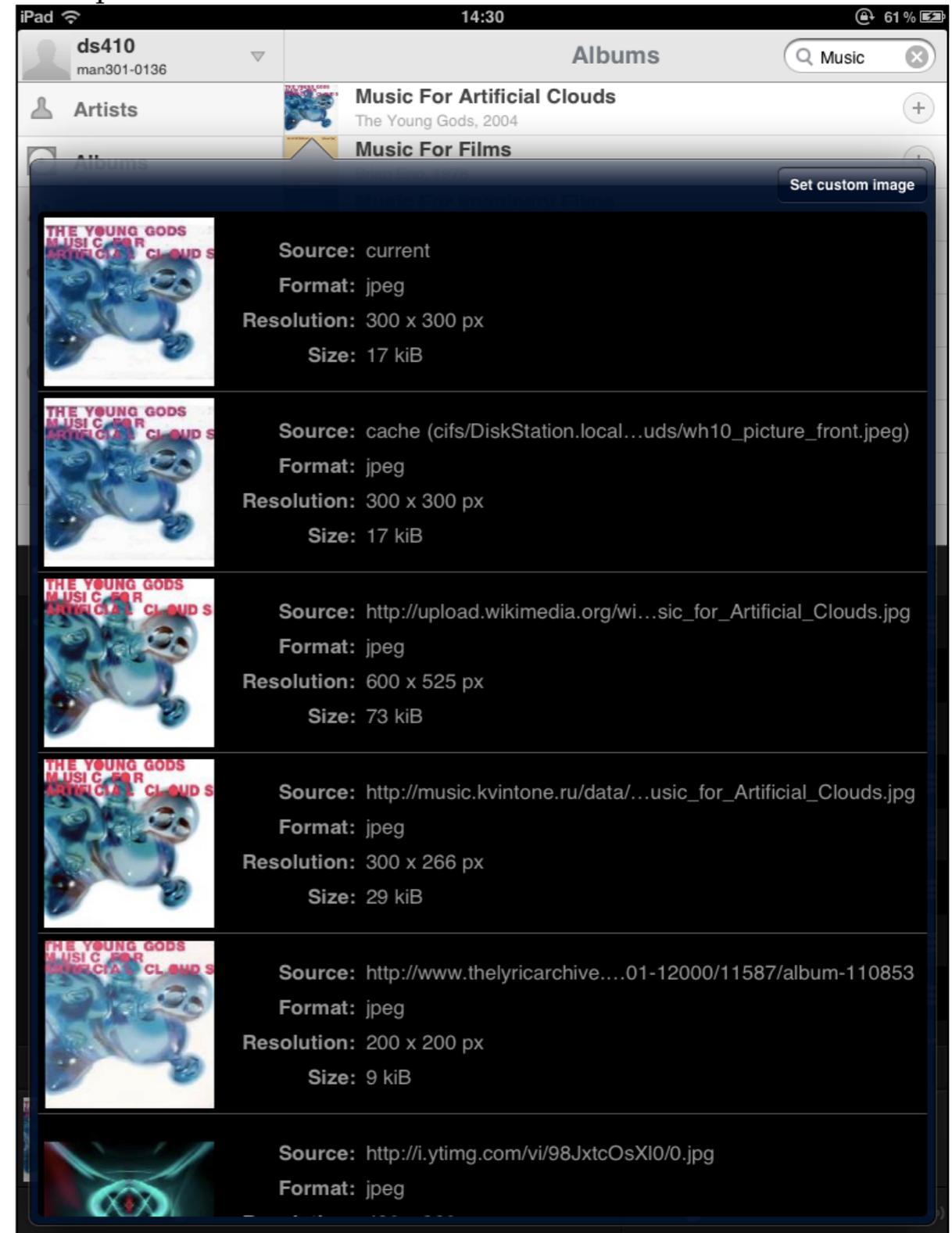
You can now navigate back with the  pad in the top bar. Here you can now add the whole album to the Queue, the same way you did it with the individual tracks. Then you can navigate one step back again to the initial Artists display. Here again, add the whole oeuvre of an artist to the Queue.

The search field in the upper right corner allows for a quick search within the Artists list.

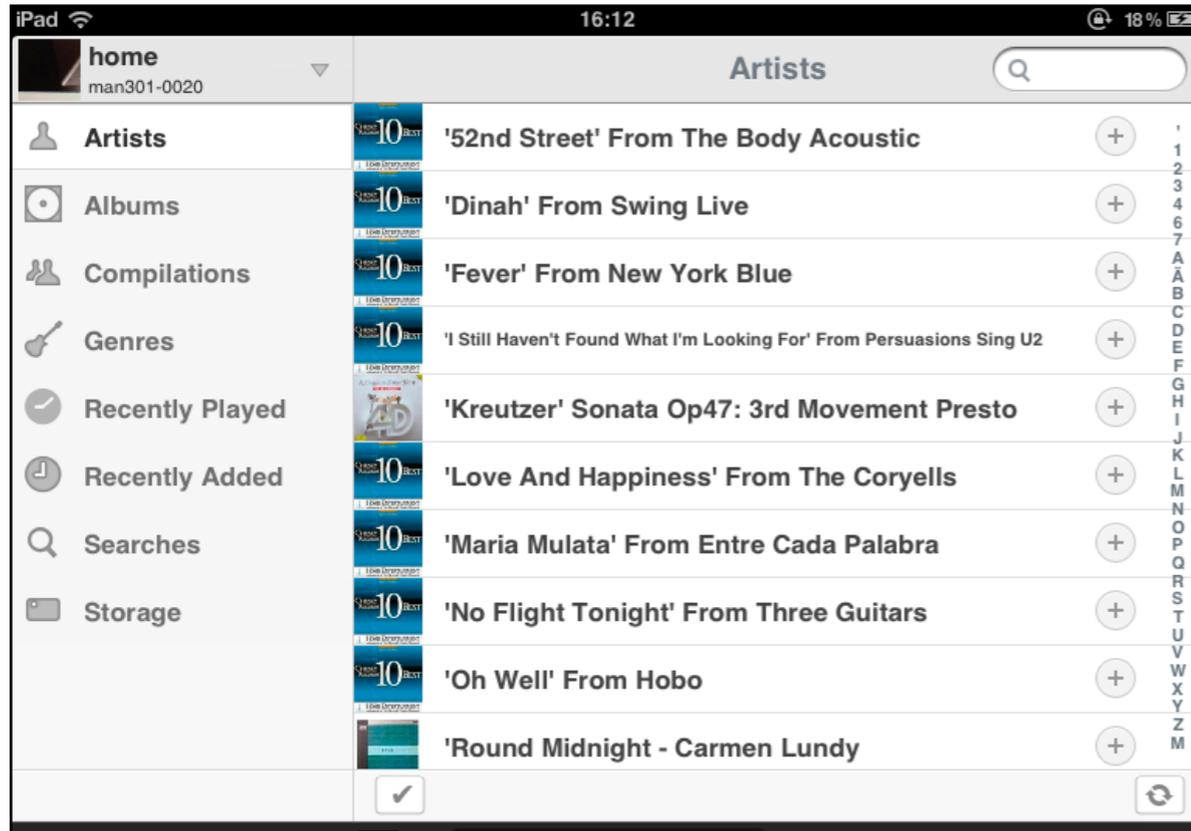
- **Albums**, shows the library content sorted by album names. The functionality is the same as with the Artists. By the way, if you do not like a particular artwork, tap and hold on the artwork. This opens a window which shows the results of an Internet search. The first entry with „Source: current“ is the artwork currently in use with the meta data database. The next entry (or entries) with „Source: cache“ shows artwork which is stored in folder(s) on the NAS containing tracks of the currently selected CD. The entries further down show newly fetched artwork from the Internet. Compare the newly fetched artworks for size and resolution and select a new one by tapping on it. If you do not like to change the cover art simply tap somewhere outside the window.

This procedure, by the way, works anywhere where cover art is visible. Just tap and hold on the cover art in order to fetch new cover art from the Internet. I.e. you even may change cover art for an album while a track of another album is playing.

Example of a cover art search:



Example of a Artists display:



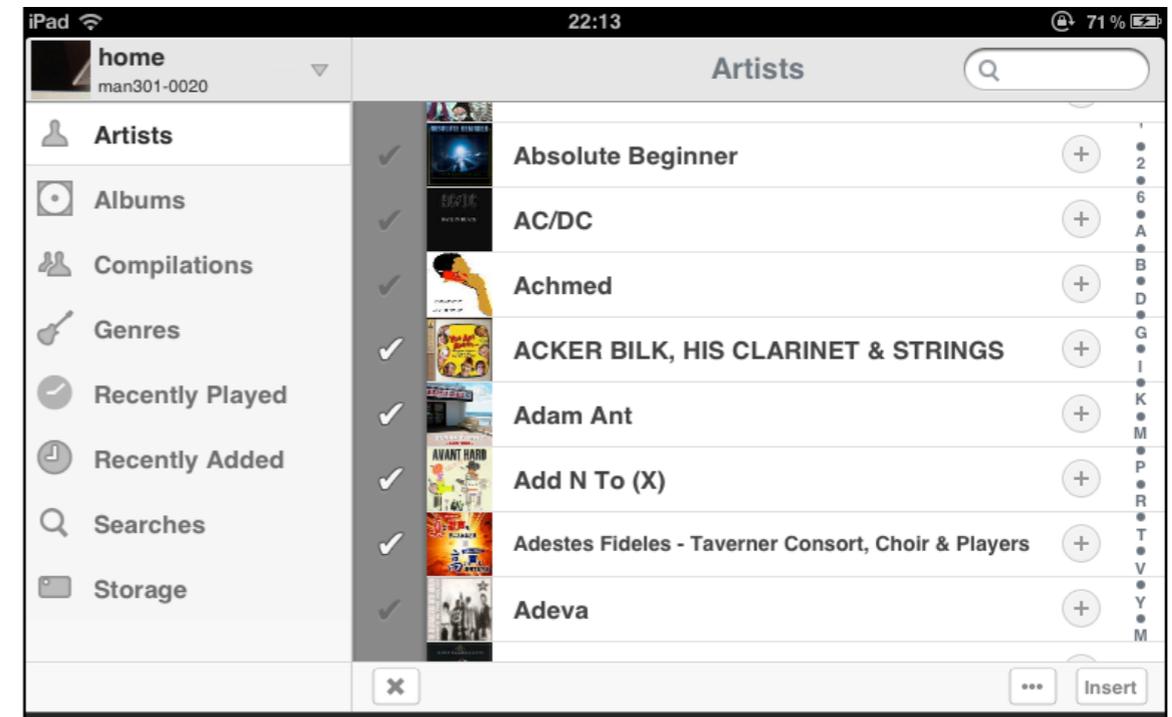
The  pad in the lower right corner allows to refresh the list. This can be useful when reading a CD just ripped.

The  pad in the lower left corner reveals a vertical bar where you can select a particular CD (or multiple CDs) for tag editing

(meta data editing via the  pad, see Chapter 4 Section 2) or

for inserting into a playlist via the  pad. The selection of CDs can be done by tapping on the vertical bar or by swiping the finger across the bar to select a bunch of CDs at once. De-selecting

works the same way. Double tap on the vertical bar to select / deselect all tracks shown.

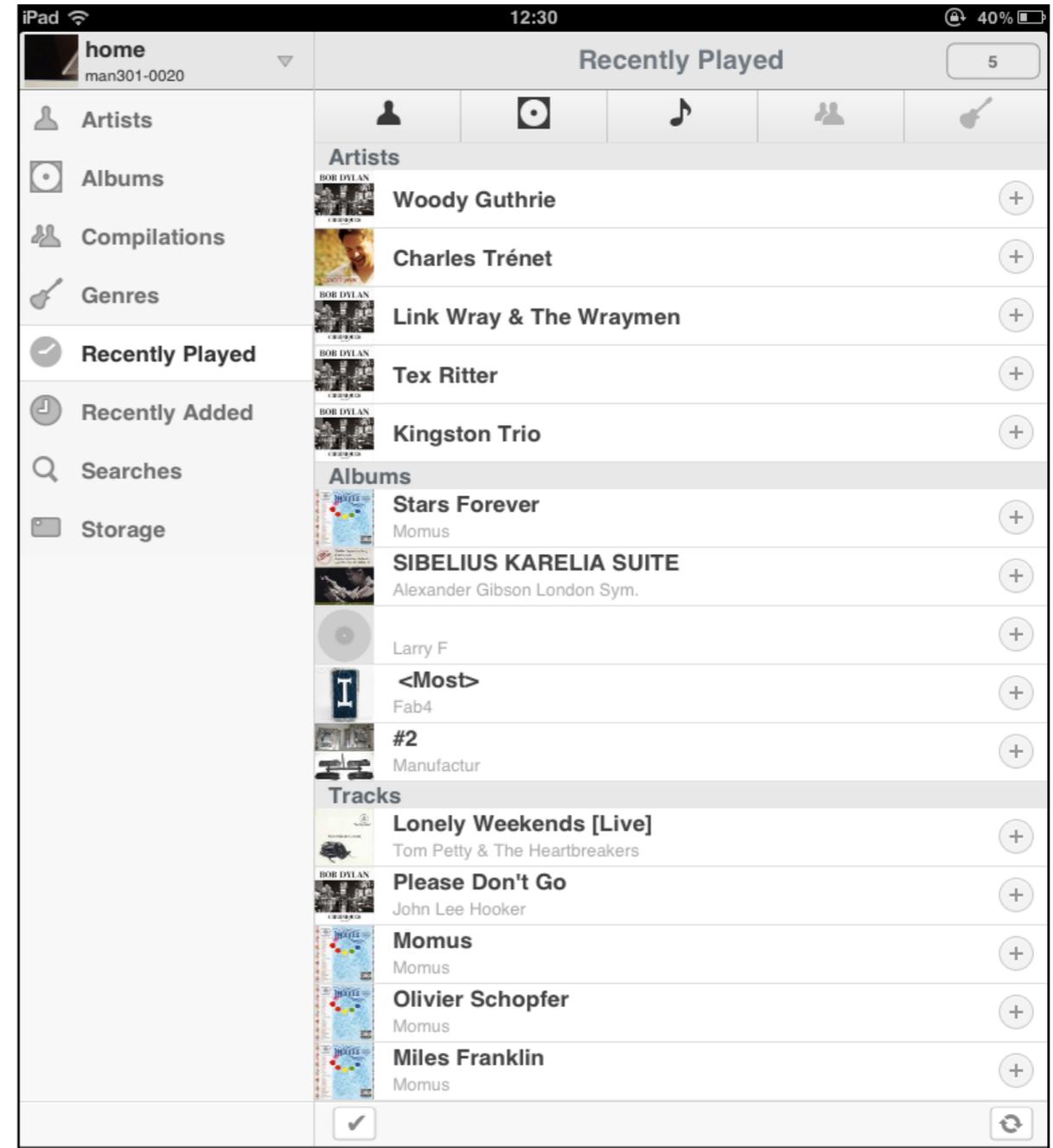


- **Compilations**, we implemented this to have a separate folder for all those CDs where several artists are present, like in movie soundtracks, label samplers etc. These CDs have the „**Compilation**“ flag set in the meta data. The meta data will be explained in chapter 4.
- **Genres**, the meta data also contains a **Genre** entry. All the Genre entries in your library are listed here. You may be surprised that there are so many different genres. This shows nicely that all the meta data information basically can be filled in freely. The meta data databases are often fed by voluntary contributors and thus personal views and typos make it to your library. In the case of genres there isn't any fixed set of recommended genres and thus anything goes. With the meta data editor built into the MAN301 you are able to correct for all those „errors“.
- **Recently Played**, generates a list of music you recently played on the MAN301. You can select the items to be displayed with the icons in the top bar.



From left to right:  
 Artists, Albums, Tracks, Compilations, Genres. This is a very convenient way to find that great track you recently played again. The numerical field in the upper right corner allows to select the (maximum) number of entries to be displayed in each category.

Example of a Recently played list with Artists, Albums, Tracks selected for display:



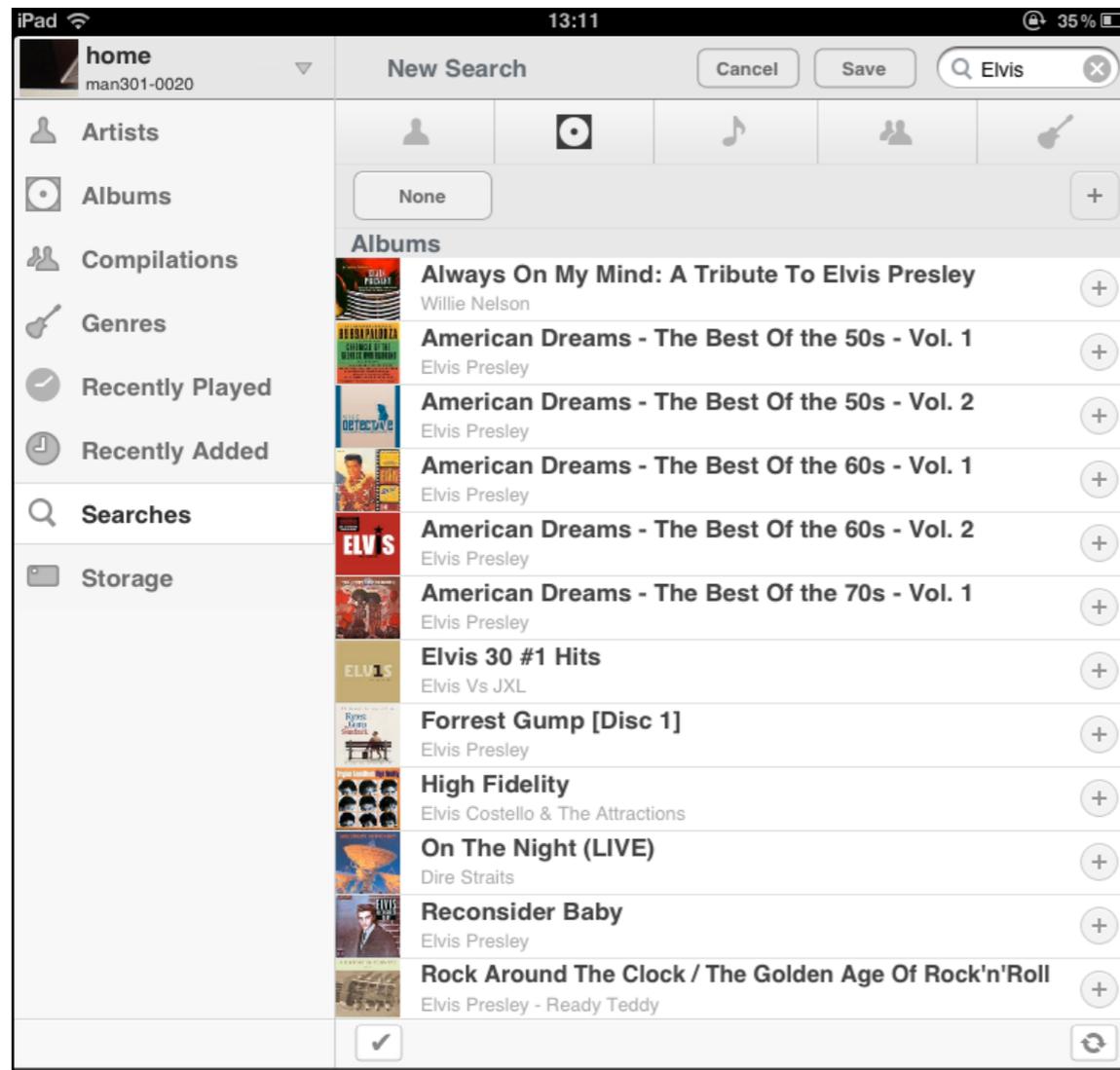
- **Recently Added**, this shows the Artists, Albums etc. you recently added to the library.
- **Searches**, a powerful tool to extract music from your library upon certain criteria. This feature can be viewed as a playlist generator based on given criteria. Thus the „playlist" generated changes whenever the library is extended with music matching the criteria in a given search.

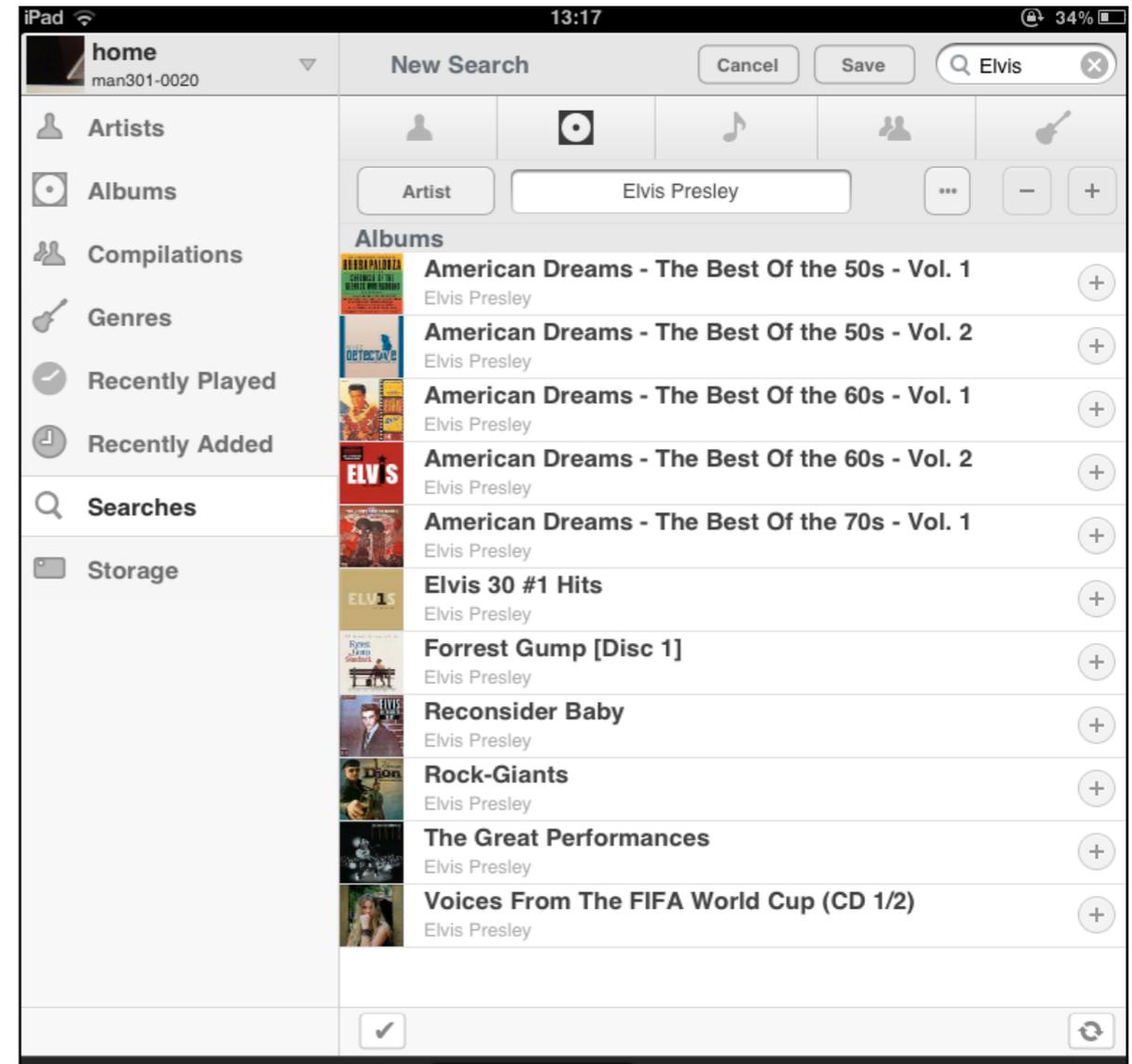
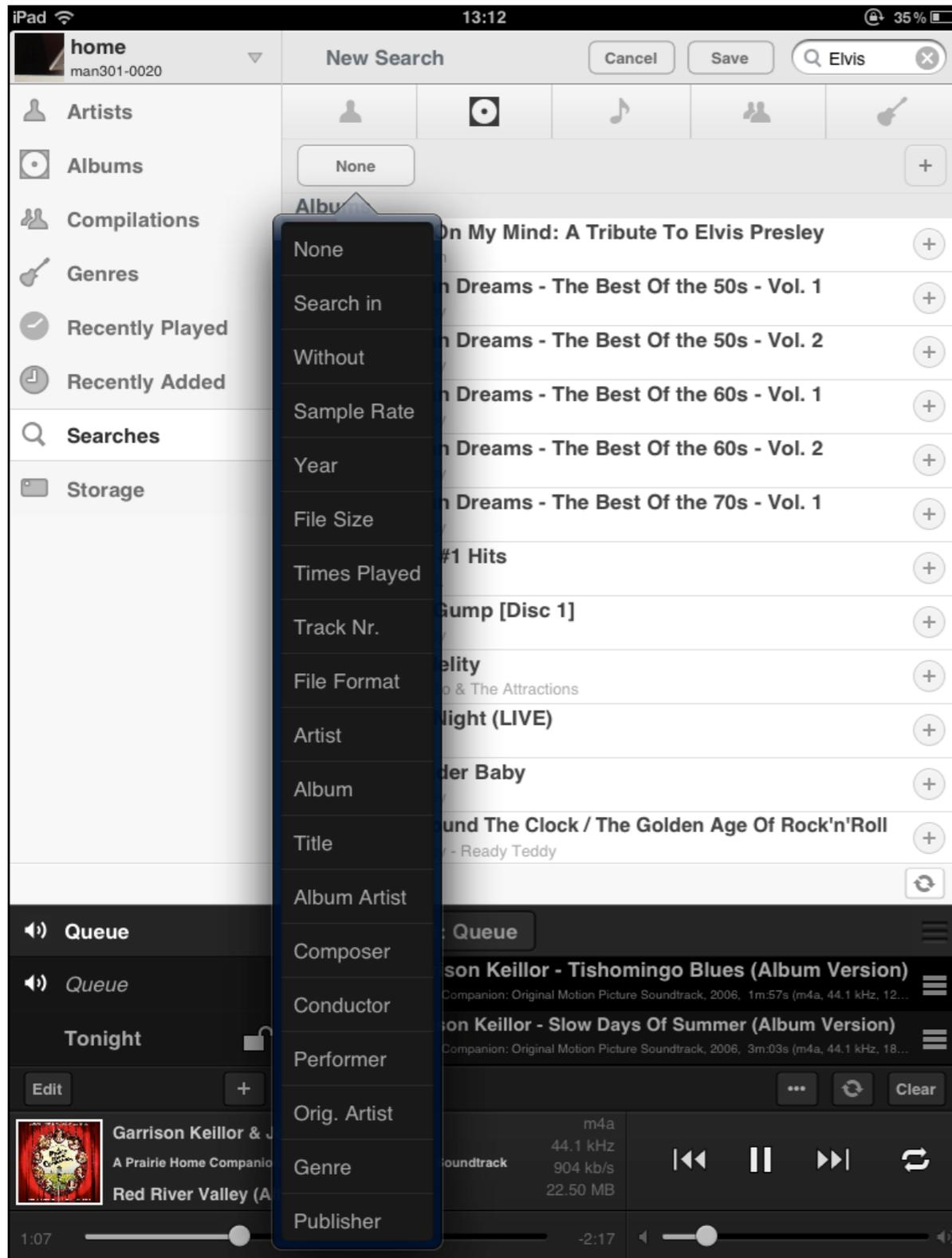
At first you may enter any word which describes what you are looking for, e.g. enter Elvis in the search field in the upper right corner. The display then changes to a similar view as we have seen it with Recently Added, the concept of selecting Artists, Albums etc. is the same. Say we have selected the Albums display, now all albums containing the word Elvis in the meta data are displayed. This may be too many and not exactly what we were looking for. So we can refine the search by tapping on the „None" pad. This opens a list of additional criteria, let's select the „Artist" and enter Elvis Presley, see the following page.

(Note, it is not necessary to enter anything into the search field in the upper right corner, you may actually skip that and tap on the



pad in the lower right to start a new search.)

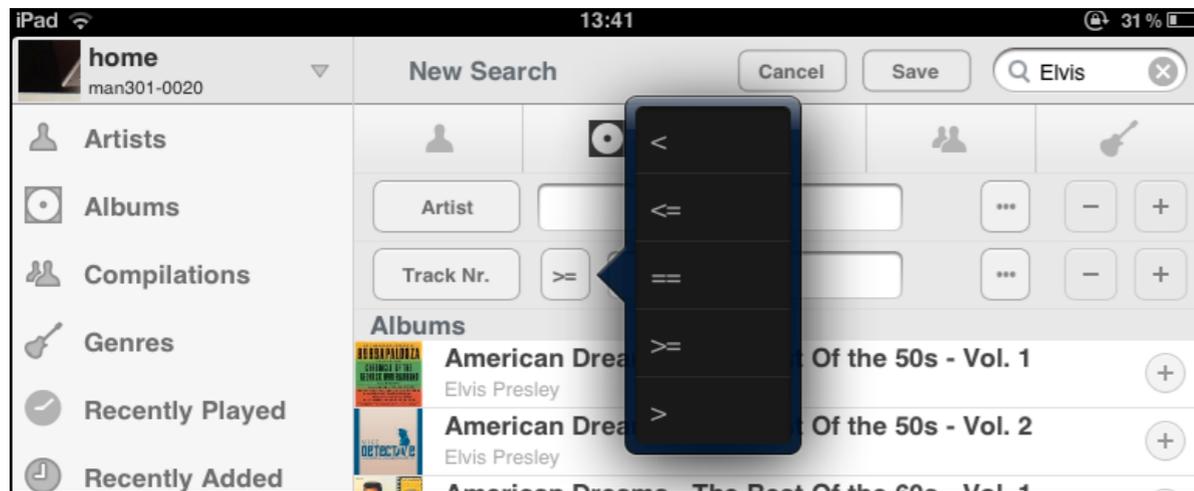




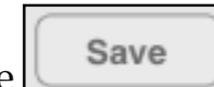
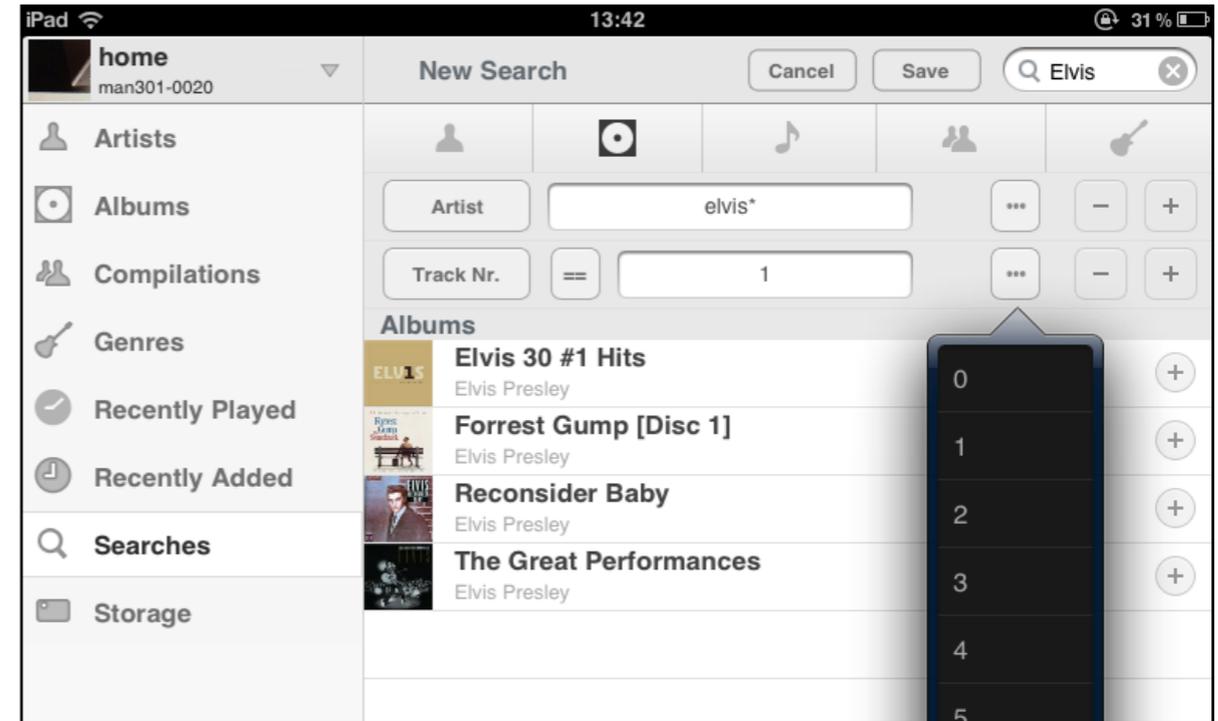
This returns the list of all Albums where Elvis Presley was the actual artist. Cover versions etc. do not show up. Note that the name has to be exactly written as it appears in the artist meta data. One could also write Elvis\* which returns all artists starting with Elvis in their name. Very useful if the spelling is not remembered or if the meta data contains spelling errors. Or for those albums where Elvis is a co-artist.

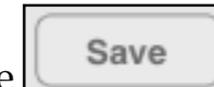


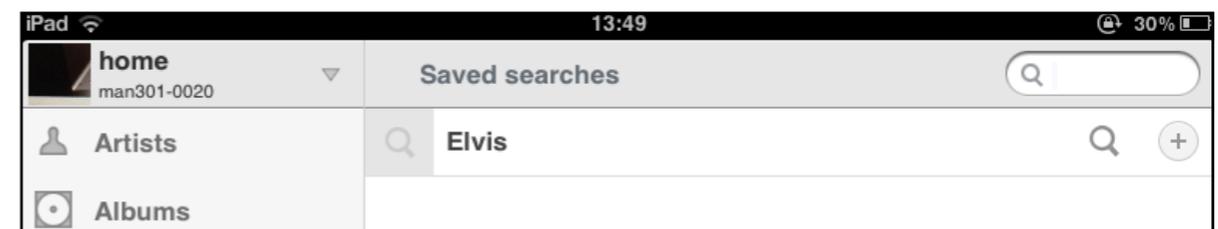
The  pad deletes the current criterium while the  pad adds another one. Let's add another one and select the Track Nr. criterium. The pad to the right of the Track Nr. pad allows to set the selection criterium ( less than, equal, larger than, etc.).



The  pad now reveals the list of track numbers available in the library. Let's select the 1. Now the list only contains the first tracks of the Elvis albums performed by Elvis.

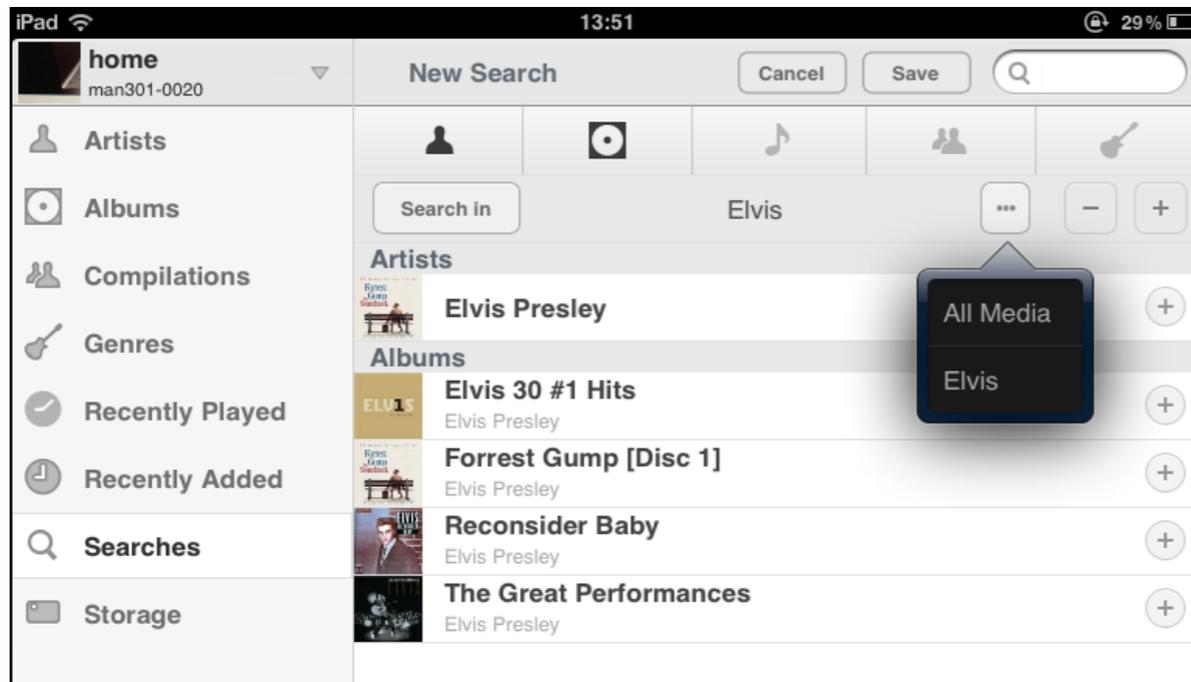


This search can now be stored via the  pad in the top bar. The stored search now shows in the list whenever we select Searches from the menu on the left. Just tap on a listed search to get the results. Tapping on the  adds the search results to the target playlist.



Tapping on the magnifying glass  allows to do another search

within the Elvis search results as shown below. So it is possible to nest searches.



Obviously the searching features are only useful if the tracks are properly and completely tagged (meta data applied). If that is the case, then it is possible to extract e.g. all tracks with conductor X, orchestra Y on label Z. A very powerful feature.

- **Storage**, shows the NAS units (Network Attached Storage units) or computer folders or Web Sources which are „Online“ or „Offline“ or which are „Available Servers“ for mounting. The meanings are:
  - Online: Mounted for the MAN301's use and available for usage.
  - Offline: Mounted for the MAN301's use but currently not (yet) available for usage.
  - Available Servers: Storage resources which may be available to be mounted for the MAN301's use.

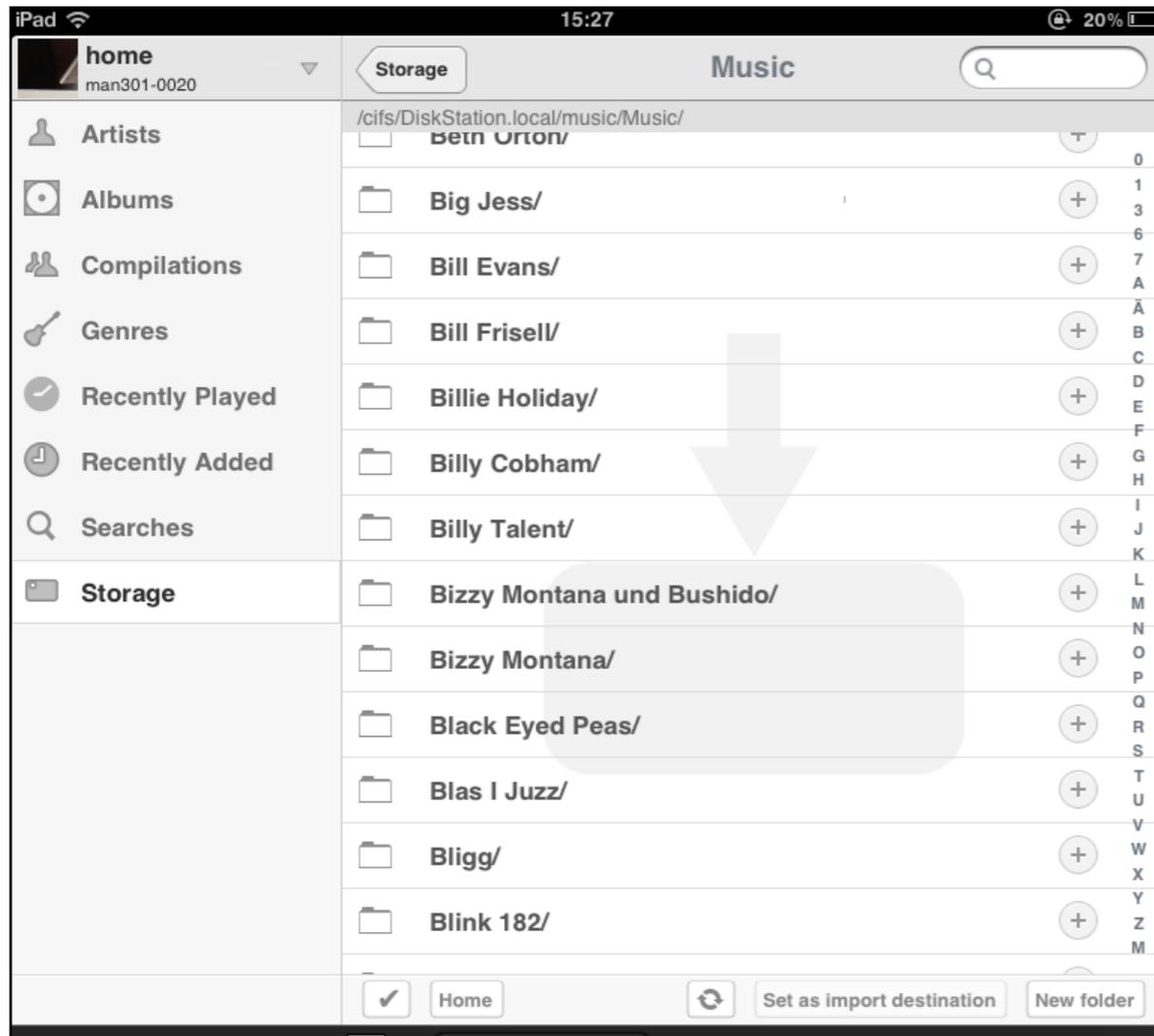
The mounting of NAS units or folders on computers is discussed in chapter 1, section 7.

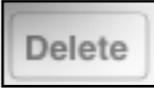
The mounting of Web Sources is discussed in Section 4 of this chapter.

Entering the mounted NAS by tapping on its list entry reveals the folder structure as in the example below. Tapping on an entry navigates further down the tree. Again, it is possible to play

tracks directly from within the file structure (tap on the  pad left to the track) or add tracks to the playlist by tapping on the

 pad.



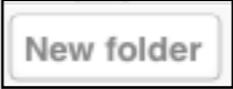
- The  pad on the lower left allows to select files or folders for subsequent editing. Be careful, with the  pad the selected files will be erased from the NAS! The  pad allows to select the meta data editor for the selected files. The  pad allows to insert the selected files (tracks) in a playlist.



The  pad navigates back to the Storage display.

The  sets the selected folder as the folder where the music ripped from CD is put. The large grey symbol indicates that the currently selected folder is the one where newly ripped music is put. See this:



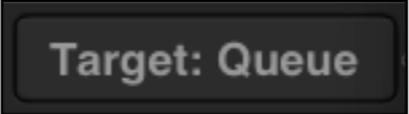
- The  allows to create a new folder.

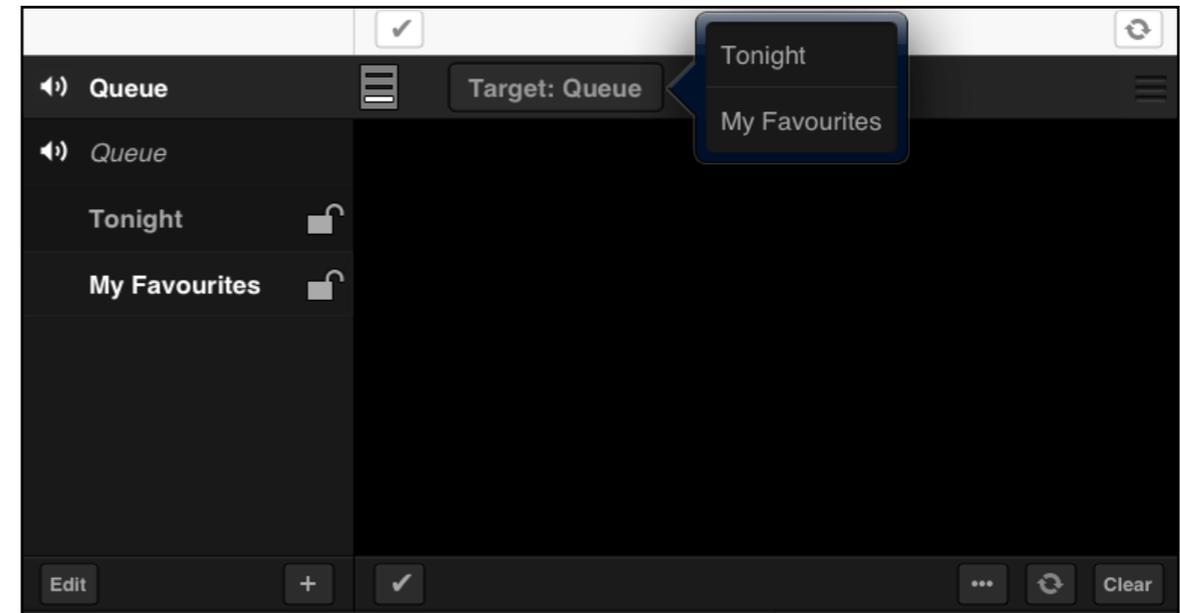
# Playlists

One thing at first - do not fear from deleting or clearing tracks and lists etc. There won't be any tracks deleted, it is only lists of tracks which can be edited. Your music is always safe. The only place where actual music tracks can be deleted is the „Storage" as described in section 1 of this chapter.

As mentioned in the previous section, the Queue playlist is the default playlist for immediate playback of tracks selected in the library. Queue should not be used to assemble a playlist, as it can be easily overwritten. The Queue playlist is always there, it can not be deleted.

For setting up your own playlists simply tap on the  pad at the bottom of the playlist window and enter a name for the playlist. If you now tap on the newly generated playlist an empty window is shown. In order to fill the playlist you first have to set

the Target to the new playlist. Tap on the  pad at the top of the playlist window. This opens a window which lets you select the playlist where you would like to add tracks.



Now select albums or tracks from the library and add them by

tapping the  pad.

With the  pad you can select how the newly added tracks are

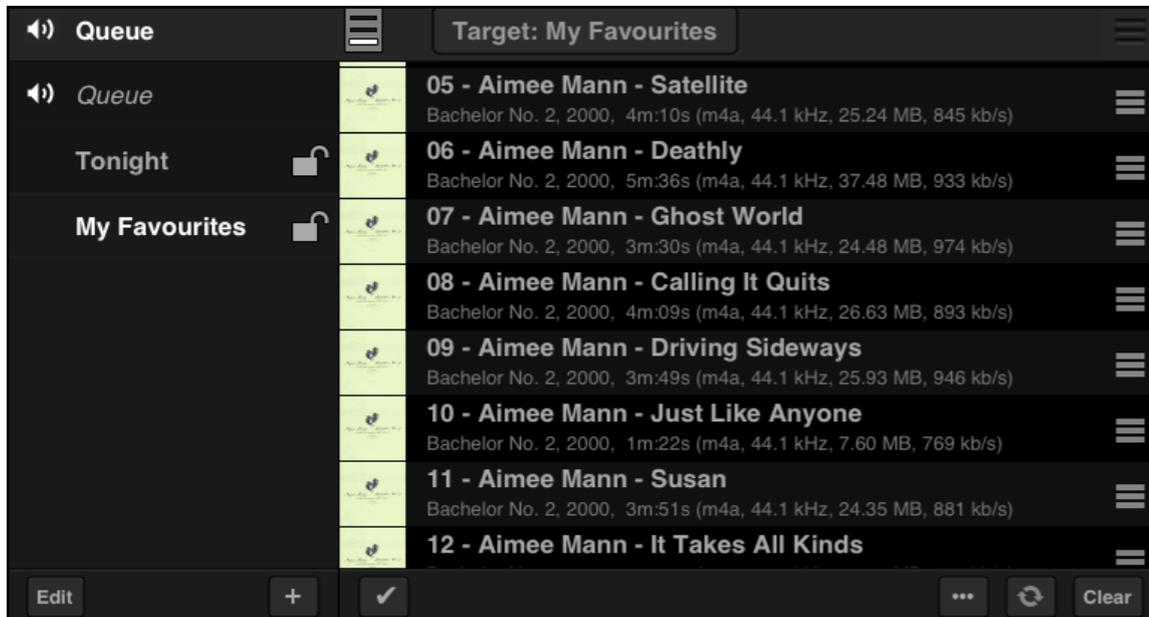
appended, either at the *bottom* of the list: 

At the *top* of the list: 

Or with this selection the tracks in the playlist get *replaced* by the

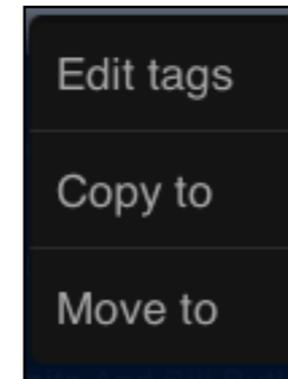
newly selected ones: 

You may change the order of the tracks by tapping on the handle  of a track and moving it up or down.

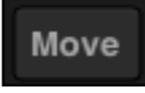
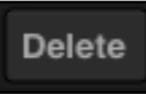


With the  pad it again is possible to select tracks for subsequent editing (note, swiping on the playlist entry to the right or the left is the same as tapping on the  pad or the  pad respectively):

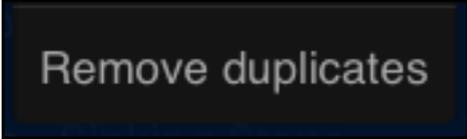
With a track or several tracks selected, the  pad reveals this list:



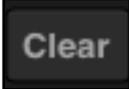
„Edit tags“ enters the meta data editor,  
„Copy to“ allows to copy the selected tracks to another playlist,  
„Move to“ allows to move the selected tracks to another playlist.

The  pad allows to move one or several tracks within the playlist, the  pad deletes the selected tracks from the playlist. (The tracks are not deleted from the library, no worries).

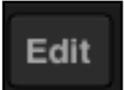
If the track selection mode is exited again (tap on the  pad), there are more features available: The  pad shows this menu:

 Remove duplicates

The „Remove Duplicates“ removes duplicate tracks from the Playlist.

The  pad allows to empty the playlist and fill it from anew.

The  pad refreshes the Playlist.

The  pad in the lower left corner is for editing whole playlists, i.e. if editing is activated, playlists can be rearranged or deleted. Only those playlists which are not set safe (with the lock  pad) can be deleted.

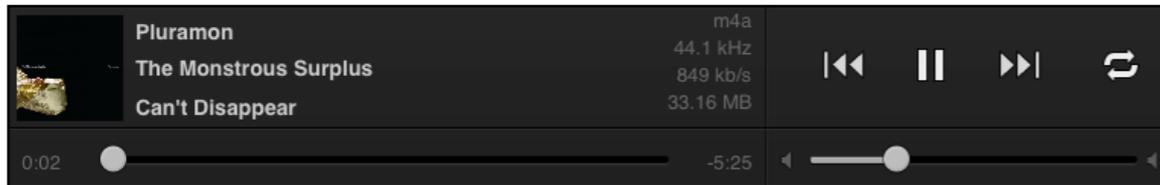
Note that if the current Target playlist is set safe, the Target playlist is automatically set to Queue, as a playlist set safe does not take tracks anymore.

The  icon to the left of a playlist indicates which playlist is currently playing.

The  or  pad in the upper right of the playlist window, allows to return to the currently playing track after scrolling through the playlist.

# Show View, Player Bar

The bottom of the library view screen shows the player bar with controls to start and stop the music and to skip tracks.

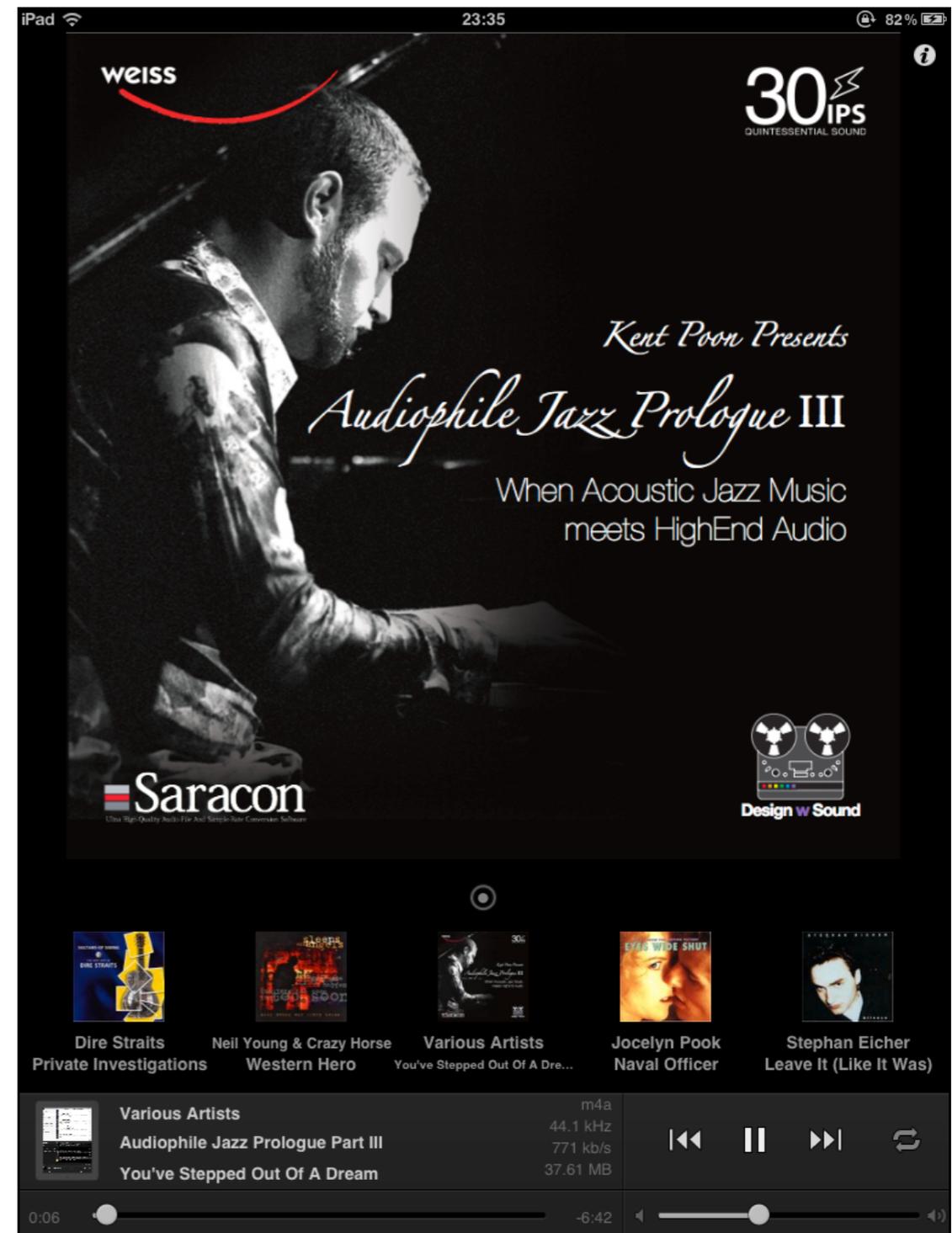


The progress bar on the lower left allows to scroll back and forth in a track.

The volume control fader on the lower right can also be moved by tapping on the speaker pads at the left and the right of the faders.

The  pad allows to repeat the whole playlist or just a single track.

Tapping on the cover art on the left enters the Show View screen with the player bar still there and the currently playing playlist shown as a cover stream which can be scrolled left / right.



Tap on a cover to play the particular track. Tapping on the dot



in the center above the cover stream readjusts the cover stream to the track playing. The playback can be controlled by tapping on the large cover art (start / stop) or by swiping left / right on the large cover art (skip backwards / skip forwards).

Tapping and holding the large cover art allows to fetch new cover art from the Internet. A window opens which shows the results of an Internet search (provided the MAN301 is connected to the Internet).

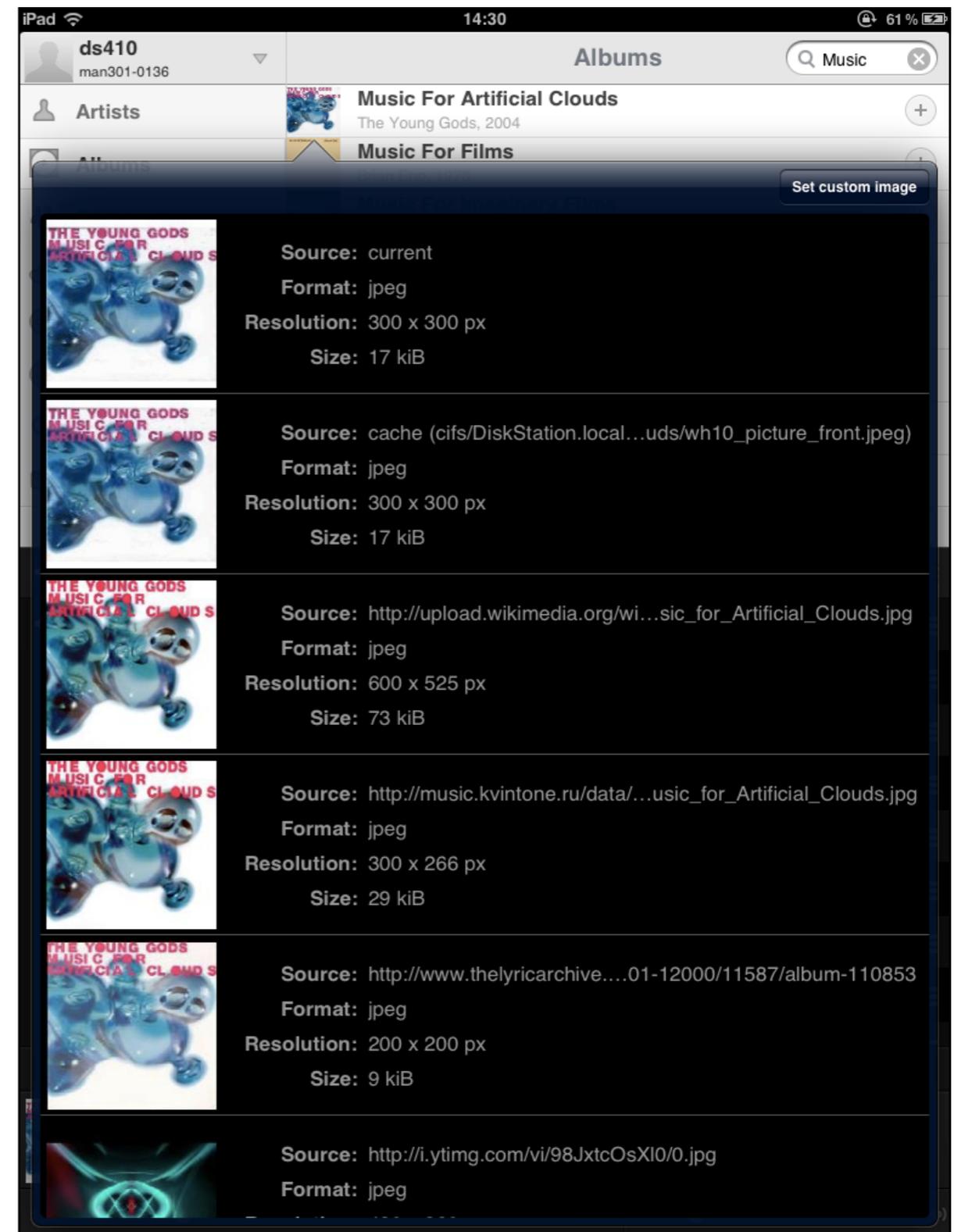
The first entry with „Source: current“ is the artwork currently in use with the metadata database.

The next entry (or entries) with „Source: cache“ shows artwork which is stored in folder(s) on the NAS containing tracks of the currently selected CD.

The entries further down show newly fetched artwork from the Internet. Compare the newly fetched artworks for size and resolution and select a new one by tapping on it. If you do not like to change the cover art simply tap somewhere outside the window.

This procedure, by the way, works anywhere where cover art is visible. Just tap and hold on the cover art in order to fetch new cover art from the Internet. I.e. you even may change cover art for an album while a track of another album is playing.

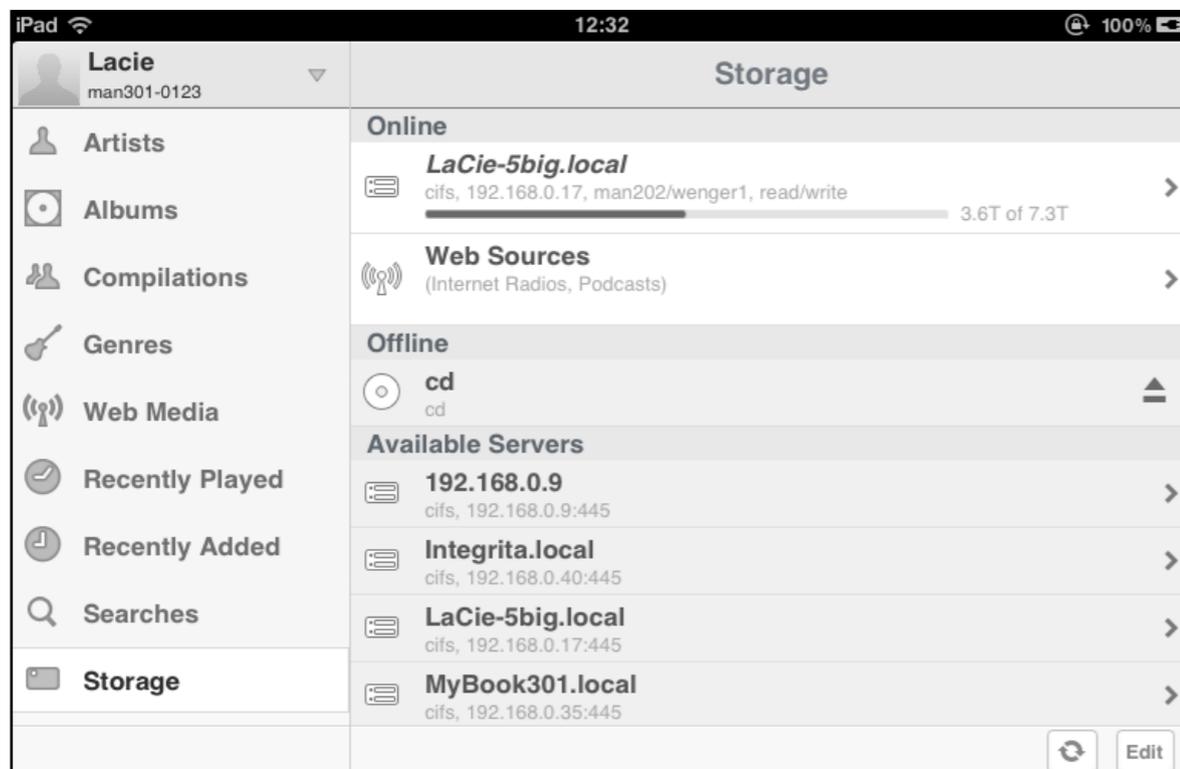
Example of a cover art search:



# Web Media

This section describes how to add links to web radios or podcasts to the MAN301's playlists.

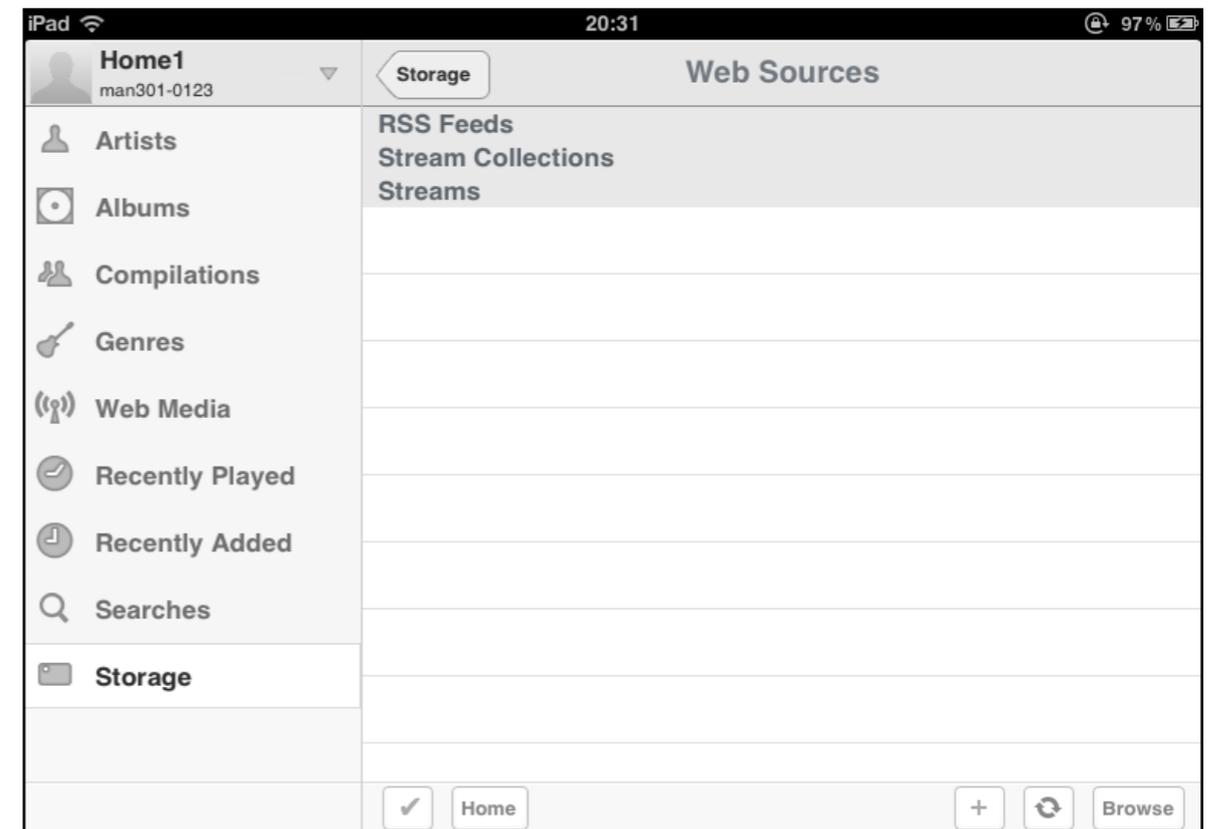
Tapping on the Storage menu reveals a screen similar to this:



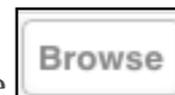
Further tapping on the

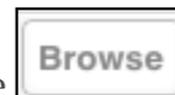


reveals a screen like this:

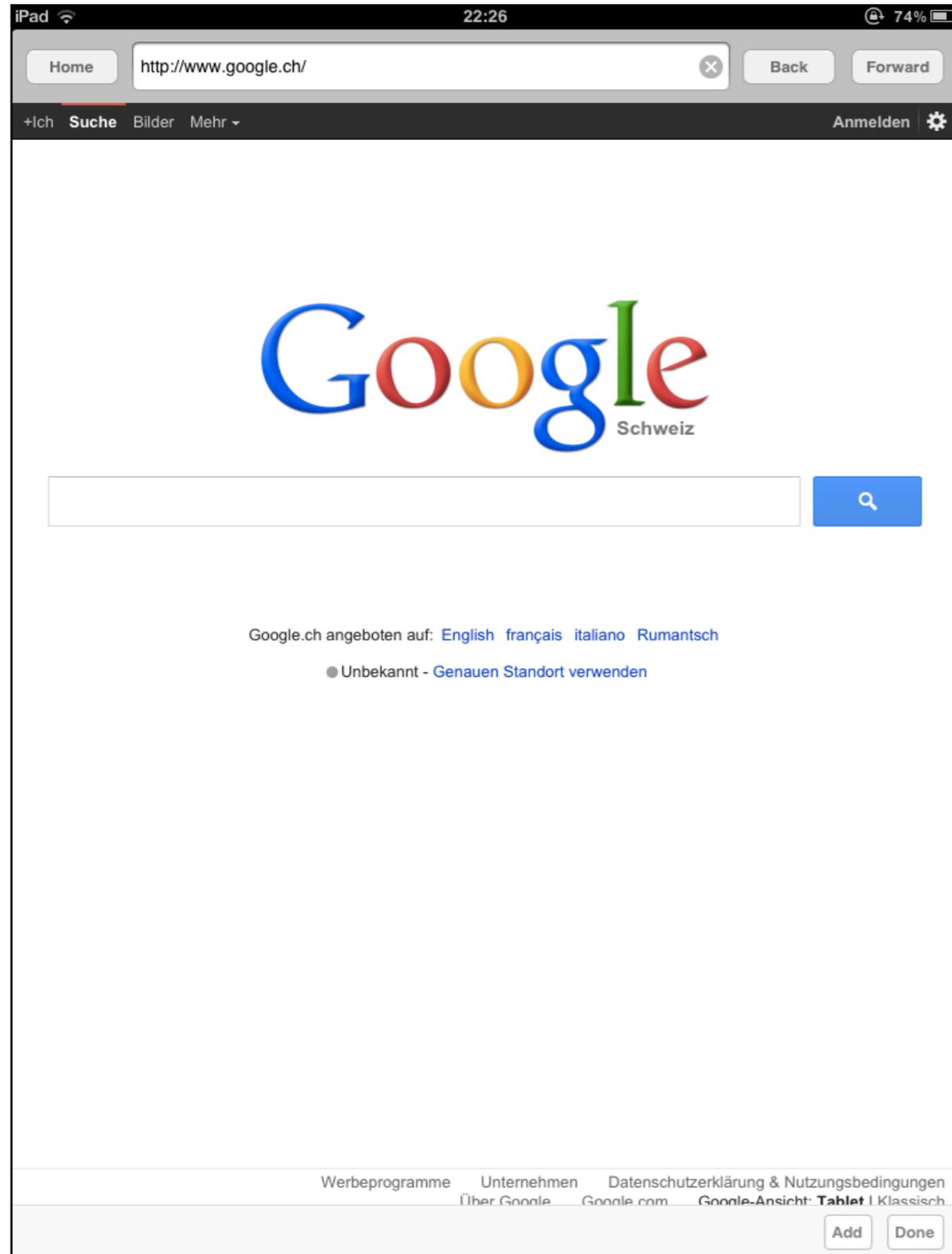


The  pad in the lower right allows to enter the URL of a web stream if the URL is known already or if it has been copied e.g. from an email message or from a Safari window.



The  pad opens a web browser window which allows to search for radio streams, podcasts etc.

That looks like this:



Note: The browser will not work if the MAN301 system is configured according to Configuration 4 and the iPad is connected to the WiFi access point of the MAN301. The iPad has to be connected to the access point of the WiFi Router instead (as indicated on the Configuration 4 graphics in Chapter 1 / Section 2).

The top bar:

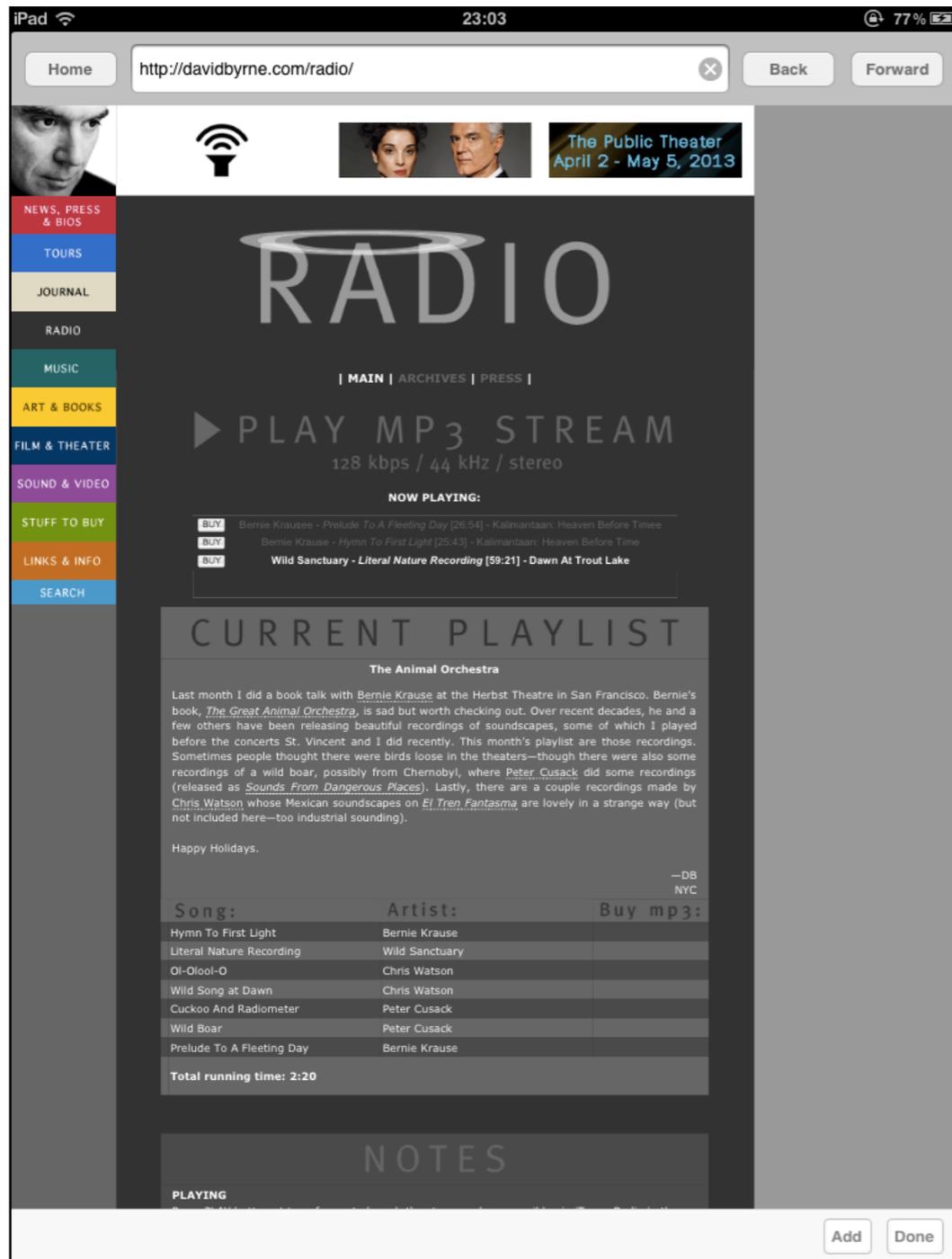


Is self-explanatory. The bottom bar:

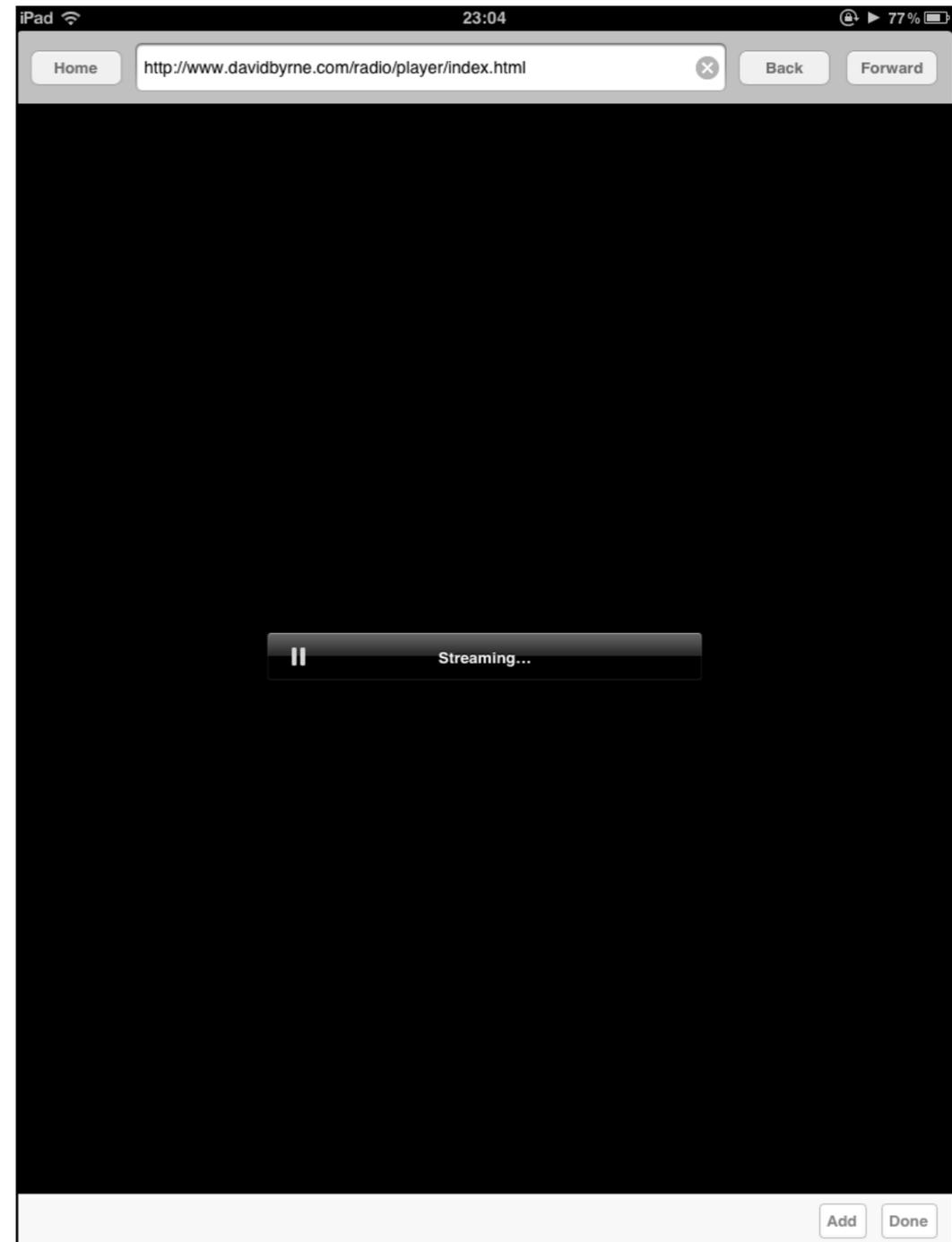


Allows to  a link (i.e. the URL shown in the top bar window) to the MAN301 Web Media list. This means with the help of the Google™ window one searches for web streams. For instance you may Google for your favorite radio stations.

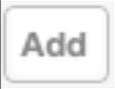
As an example let's Google for: David Byrne Radio and then enter his website:



There tap on the PLAY MP3 STREAM link. This opens this window:



I.e. the radio is now streamed via the iPad and you may hear it through the iPad speaker.

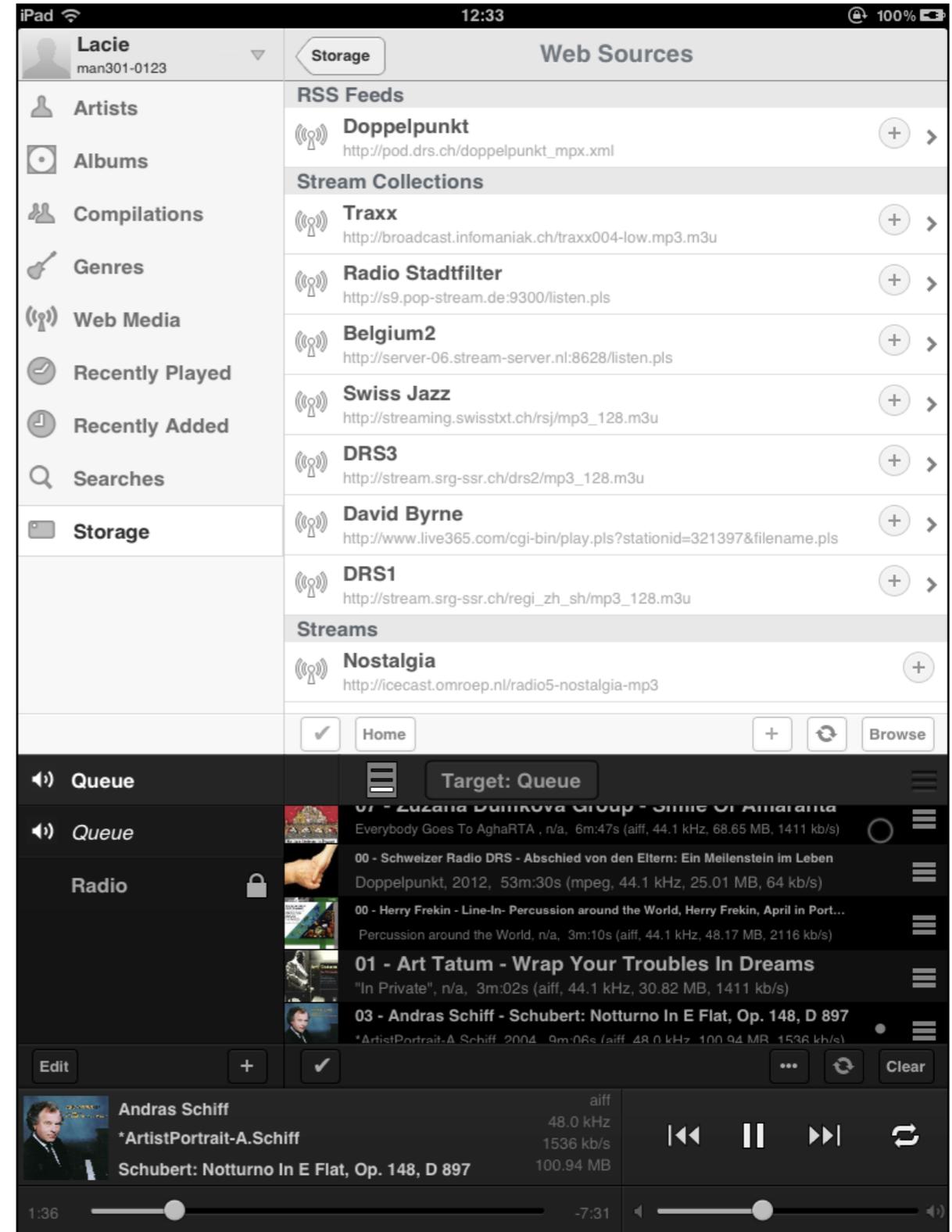
Now tap on the  button in the lower right. This opens a window like this:



By tapping on the Add pad this stream (i.e. the URL of the stream) is added to the MAN301 Web Media list. If the URL is not a valid web media format then an error message will tell you about that. If on the other hand it is a valid media format, this screen is shown (allow for a while until it shows up):



Here you can enter a name for the media link to be added, e.g. in that case we enter e.g. „David Byrne“ which then shows in the list as shown below. (Note, this label always can be changed if necessary.)



David Byrne is shown in the „Stream Collections“ department.

The same list is shown in the  menu where

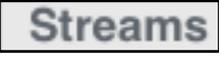
the stream now can be added (  ) to a playlist in a similar way as one would add a CD track.

Note, adding a Stream Collection to a playlist may result in several similar entries. To get rid of the duplicates simply tap on the

 pad in the lower right of the playlist window and select „Remove duplicates“.

The stream can now be played in a similar way as a CD track. Note, the progress bar does not move in the case of a stream, as the duration of the stream is not known.

There are three different sections as seen above:

-  for audio podcasts, typically with an .xml extension.
- , here go the playlist files with extensions like m3u, pls,... Playlist files contain a list of e.g. mp3 streams. Radio stations often use such files for their streams.
- , here go the streams with extensions like mp3, ....

The media links you add via the web browser are automatically put into the proper section.

There are sites on the Internet where collections of radio stations are shown. Here are some examples:

Stations in Europe: [www.listenlive.eu](http://www.listenlive.eu)

Worldwide: [www.internet-radio.com](http://www.internet-radio.com)

Directory of directories:

[www.dmoz.org/Arts/Radio/Internet/Directories/](http://www.dmoz.org/Arts/Radio/Internet/Directories/)

Note, not all kinds of streams work with the MAN301. Try the streams with these icons first:



## CHAPTER 3

# Audio I / O, Sync I / O



The MAN301 sports a number of digital audio inputs and outputs as well as **word-clock** synchronization facilities. The DAC version of the MAN301 in addition has analog outputs on XLR and RCA connectors.

# Audio Input / Output

The MAN301DAC version (the one with the built-in D/A converter) has appropriate analog output connectors at the back, a pair of XLR and a pair of RCA connectors. Connect either one to your amplifier (or pre-amplifier) and set the basic output voltage as described below. Note, both RCA and XLR outputs of the DAC may be used simultaneously.

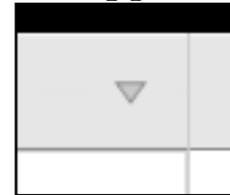
If you decided to have the MAN301SERVER version then you connect your external D/A converter via one of the digital outputs, namely AES/EBU on XLR, S/PDIF on RCA, USB, FireWire. The fader volume control works in that case as well. This volume control which obviously is implemented in the digital domain is a properly dithered volume control and thus is as good or even better than a volume control in the analog domain. The actual quality of such a digital volume control also depends on the D/A converter used. If the linearity of that D/A converter is compromised, the volume control will also be compromised.

With the internal D/A converter of the MAN301 DAC unit, the quality of the volume control is extremely high. Indistinguishable from a state of the art analog volume control.

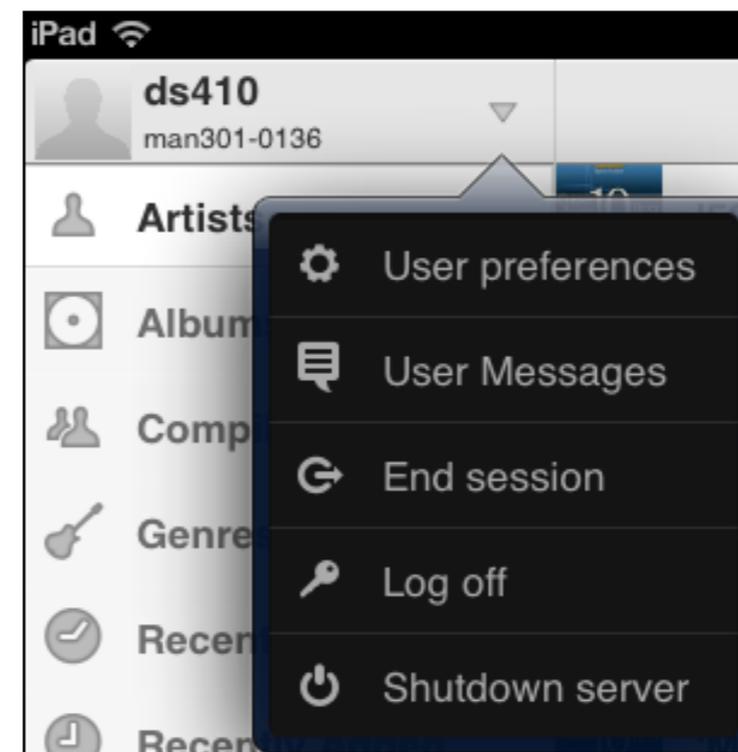
More on the digital volume control topic can be read in Chapter 7, Section 2.

The audio inputs / outputs as used in the Pre-amplifier mode are described in Chapter 1 / Section 5. This section explains the usage when in Network Player mode.

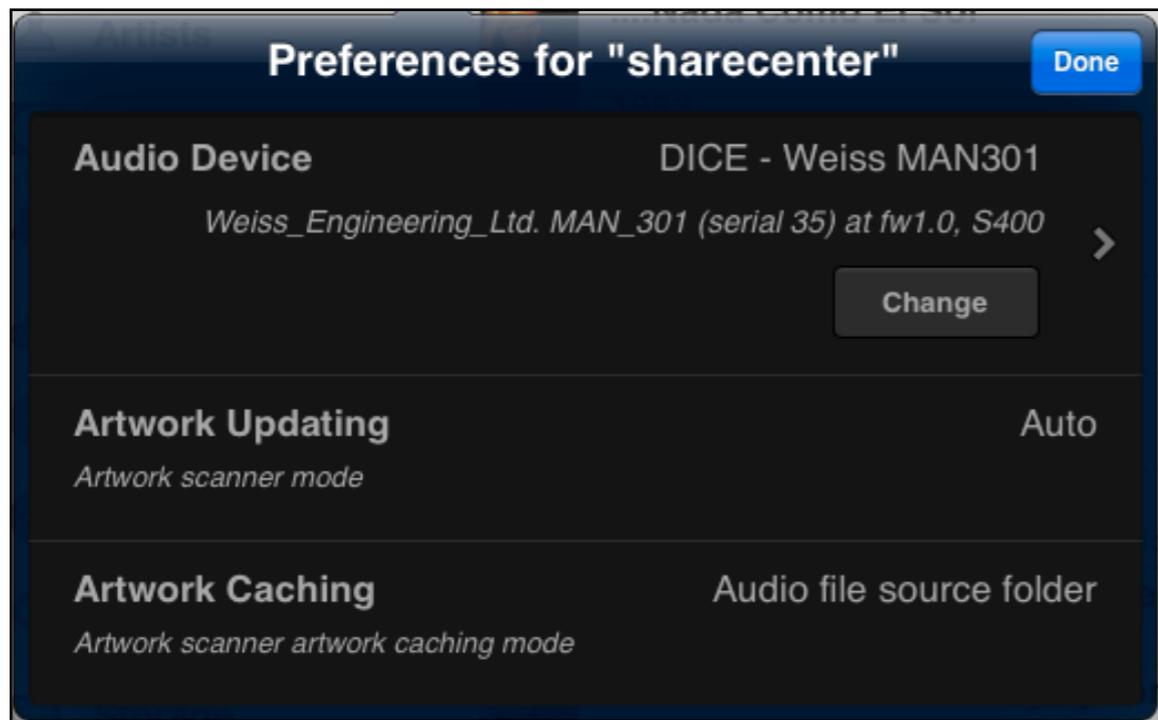
When logged in with a user account, the tapping on this pad in the upper left corner:



reveals the menu like this:

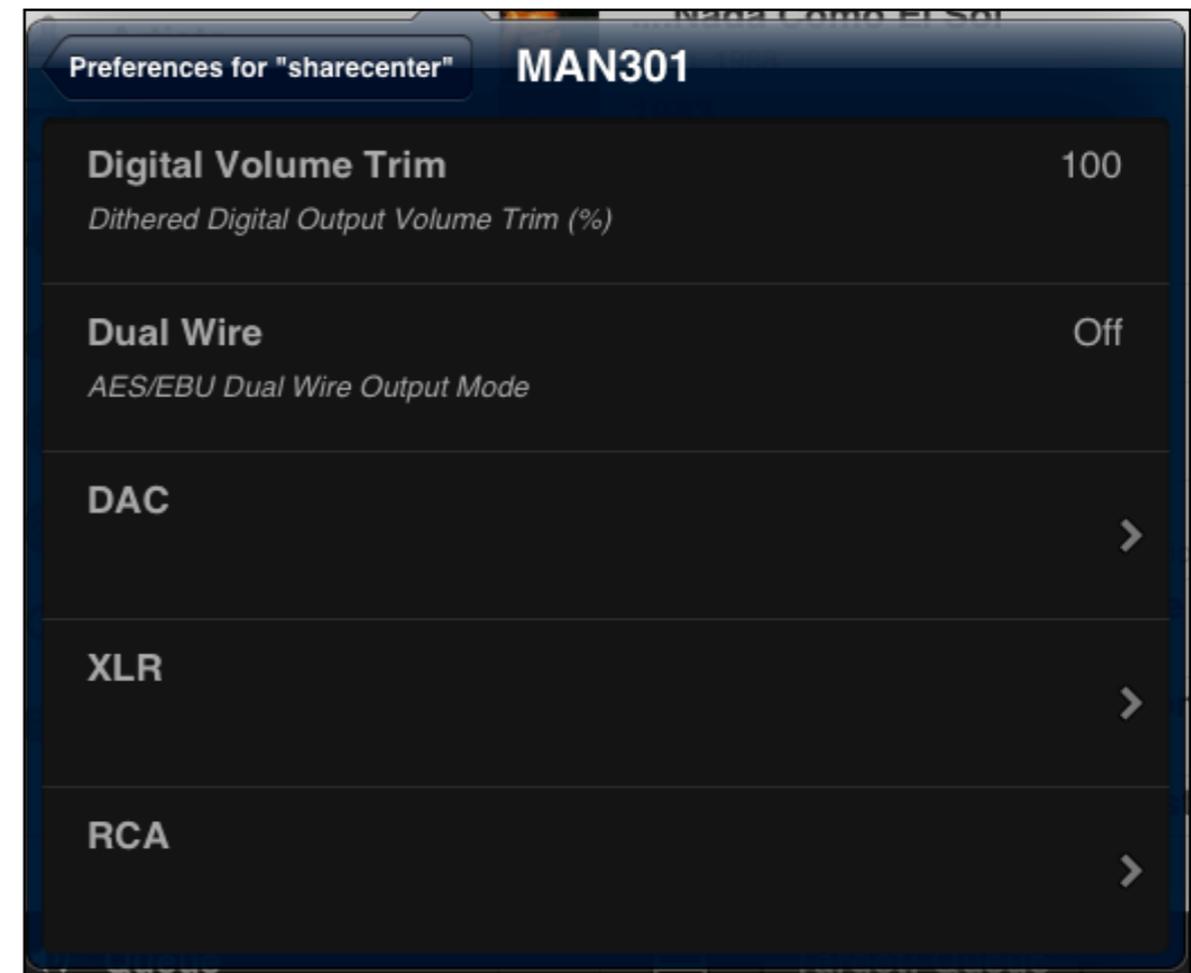


Tap on „User preferences”, this reveals a screen like this:



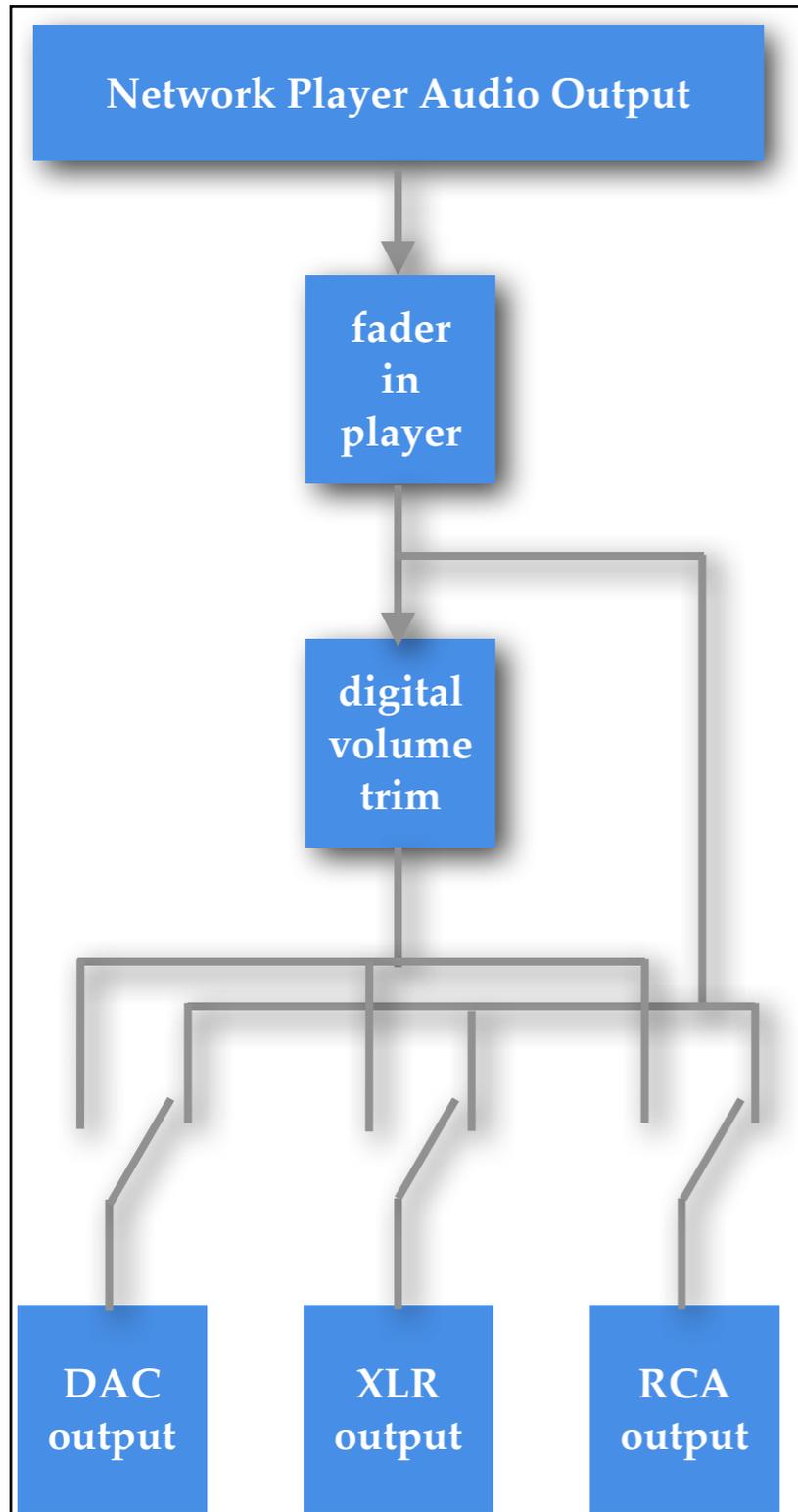
The „Artwork” entries are described in Chapter 1 / Section 4.

Tap on the  pad in the „Audio Device” entry to enter this screen:



Note, the „DAC” entry is only shown if there is an internal D/A Converter installed in the MAN301 (this is an option).

In order to understand the MAN301's output structure, this block diagram is helpful:



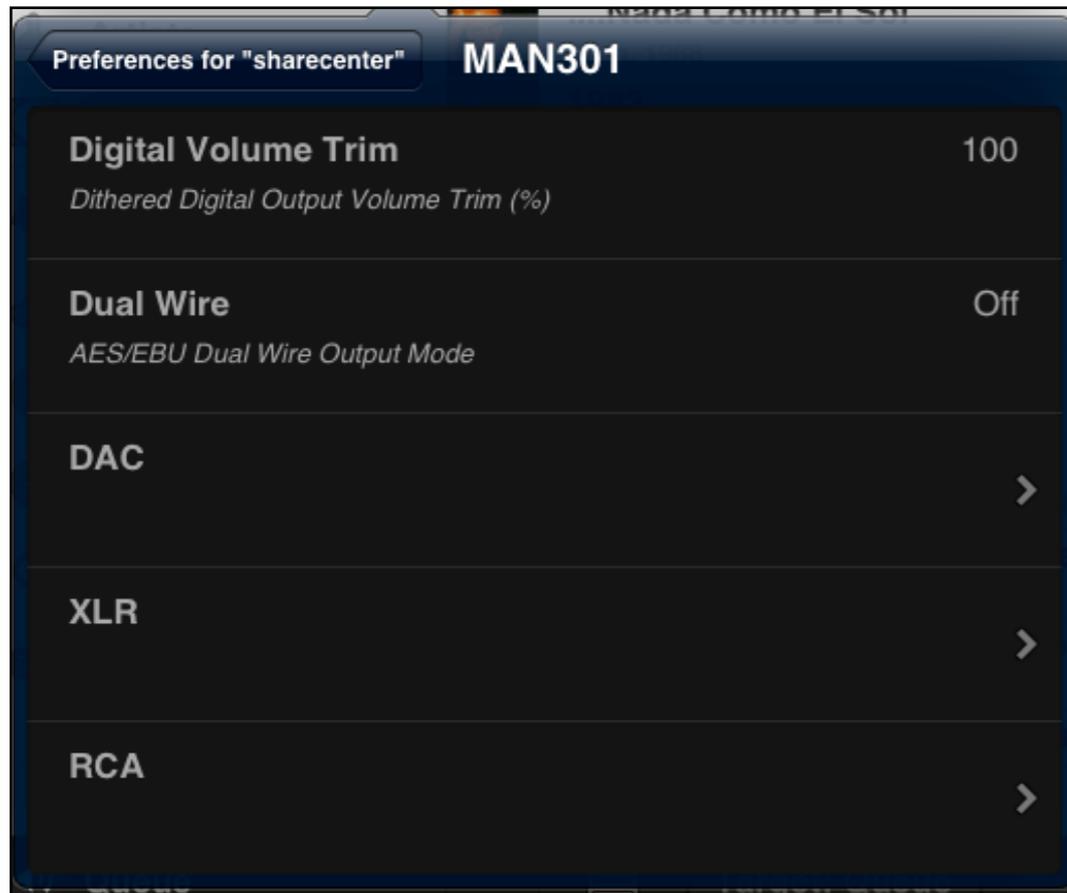
The main volume fader in the network player window is always active as can be seen in the block diagram.

The digital volume trim can be enabled individually for each output. The DAC output in addition has a 4 level analog output attenuator. This, in conjunction with the digital volume trim, allows to set the output voltage to any level requirement imposed by the subsequent amplifier.

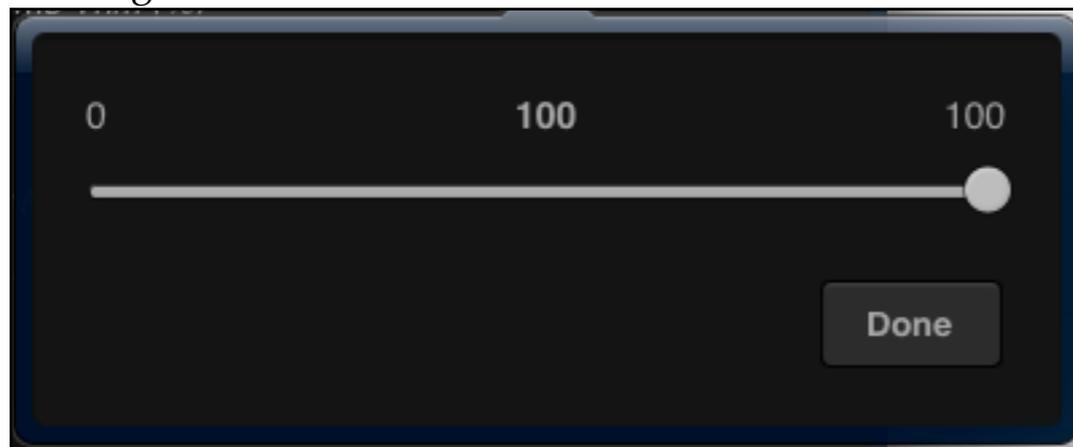
The best procedure to set the DAC output level is to first have the digital volume trim and the player fader at maximum and then set the analog attenuator such that the level is a bit at the high side of the volume you would like to get at maximum. Then change the digital volume trim to get the level you would like to have at the maximum player fader setting. Bear in mind to allow for some headroom in case a recording is very low level.

All level controls in the MAN301 are properly dithered. See Chapter 7, Section 2 for an in-depth treatment of the digital level control topic.

Let's get back to this screen:



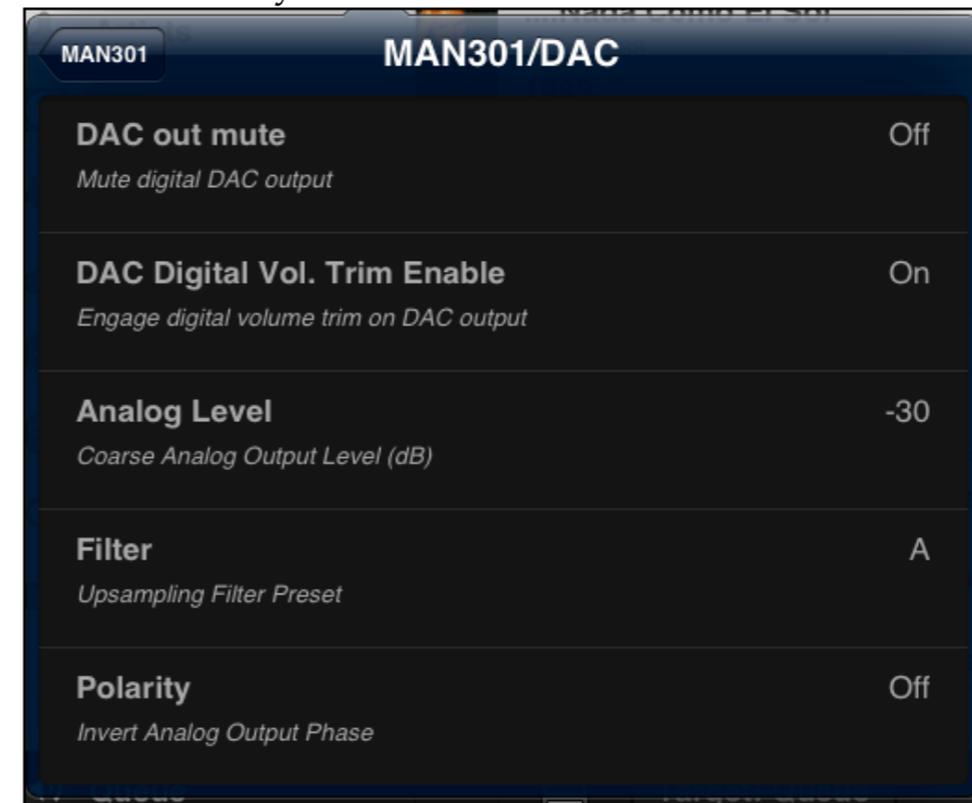
The Digital Volume Trim reveals a window like this:



Here the level trim can be set. Note, the level setting becomes active only after the „Done“ pad has been tapped.

The Dual Wire switch allows to set the XLR and RCA outputs to the dual wire mode. In this mode the XLR output becomes the left audio channel and the RCA output becomes the right channel. This mode is useful e.g. for older D/A Converters which support higher sampling rates in dual wire mode only. The dual wire mode (when selected) is active only for sampling rates of 176.4 kHz or 192 kHz. For all other sampling rates the MAN301 stays at single wire mode. The settings for the RCA output (i.e. the volume trim and the mute on/off) are not relevant in dual wire mode. The settings for the XLR output (volume trim, mute) are relevant for both XLR and RCA outputs.

The DAC entry reveals this window:



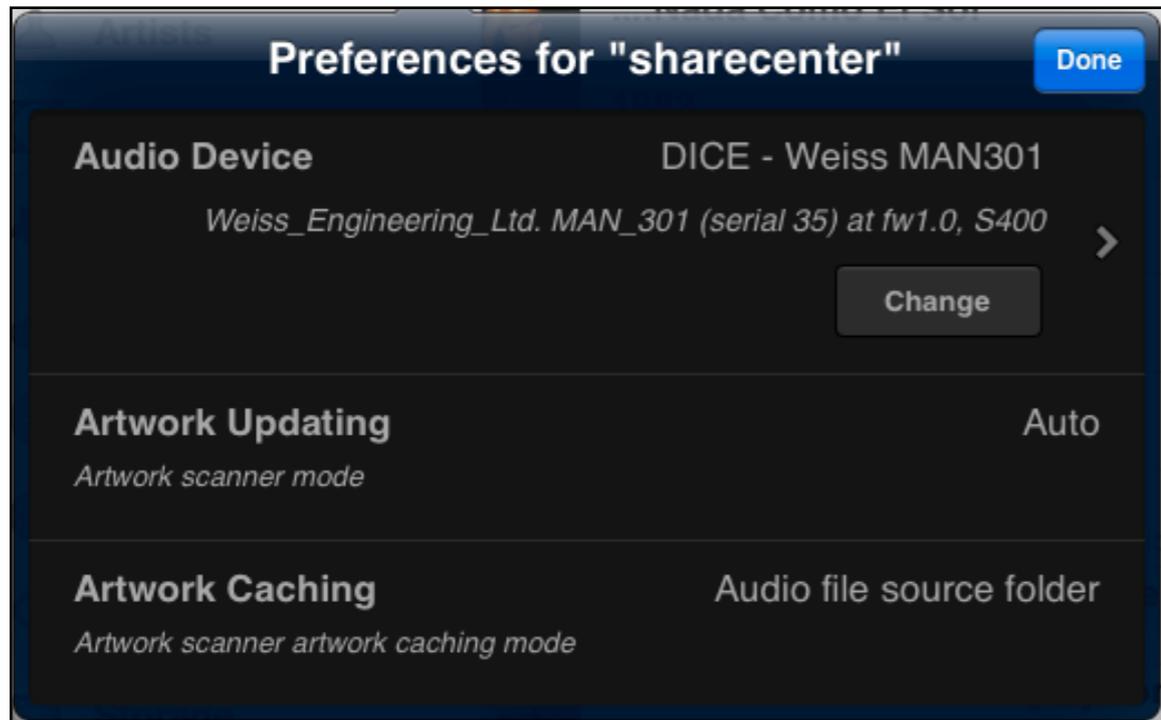
- The „DAC out mute” switches off the D/A Converter output
- The „DAC Digital Vol. Trim Enable” puts the DAC output under control of the Digital Volume Trim described above.
- The „Analog Level” control sets the analog output level of the D/A Converter in four steps ( 0, -10, -20, -30 dB). Set the analog output level such that the volume can be conveniently controlled with the digital faders. I.e. if the faders are set to the maximum, the volume should be at the maximum volume you care to listen at.
- The „Filter” control selects the oversampling filter type in the D/A Converter. The A type is a steeper filter with less aliasing effects and higher pre-echo while the B filter has a gentler slope with more aliasing and less pre-echo. Choose whichever filter you prefer.
- The „Polarity” allows to invert the polarity at the D/A Converter output. This can be handy if a recording does not sound „quite right” - it could be that the polarity of that recording is wrong.

The XLR or RCA entries reveal a window like this:



Here the two outputs can be individually muted or put under control of the Digital Volume Trim as described above.

In this window,



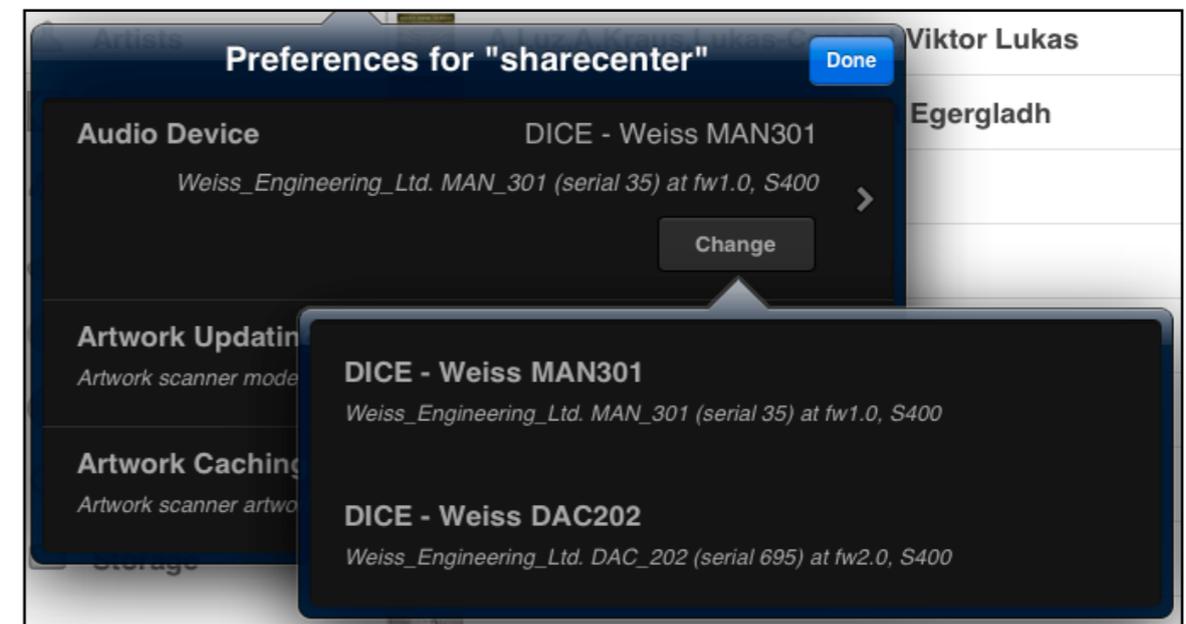
by tapping on the „Change“ pad, the audio device for the audio output can be selected. The default device is the DICE - „Weiss MAN301“ device, which is the built-in audio interface which includes the AES/EBU and S/PDIF outputs as well as the optional D/A converter.

If you connect an external D/A Converter via Firewire or USB, make sure to always adhere to this power up / power down sequence:

**Power up:** Switch on the external DAC, switch on the MAN301.

**Power down:** Switch off the MAN301, switch off the external DAC.

Once both DAC and MAN301 are switched on, the connected device will show up in the list, like in this example:



There is a Weiss DAC202 connected via a Firewire link. This can now be selected as the output device. The internal „DICE - Weiss MAN301“ is then disabled. Similarly, a USB D/A converter connected via the USB socket at the MAN301 back can be selected.

**Note, after having selected a new output device, log off from the network player mode and then log on again.**

Hints to connect external D/A Converters:

D/A CONVERTER TYPE	CONNECT VIA
Weiss DAC202	FireWire (select the Weiss DAC202 device as described above). Note, there is a special DAC202 Firmware required if connected via FireWire to the MAN301 (see our website, downloads page)
Weiss DAC202U	USB (select the Weiss DAC202 device as described above)
Weiss DAC202 or DAC202U or DAC2 or Minerva or Medea or Medea+ or DAC1	Can also be connected via AES/EBU or S/PDIF.
Weiss DAC2 or Minerva	Firewire (select the Weiss Minerva device as described above)
Weiss DAC1 or Medea or Medea+ with Firewire option	Firewire (select the Weiss INT202 device as described above)
Weiss INT202 or INT203	Connecting these interfaces does not make much sense, as the MAN301 has them built in
Any third party USB DAC	USB (select the appropriate device as described above)
Any third party DAC with AES/EBU or S/PDIF input	Connect via AES/EBU or S/PDIF

# Synchronization Input / Output

The MAN301 has an internal clock generator for the sampling rate generation. Depending on the track played, this generator is automatically set to the appropriate sampling rate. This is the recommended operating mode.

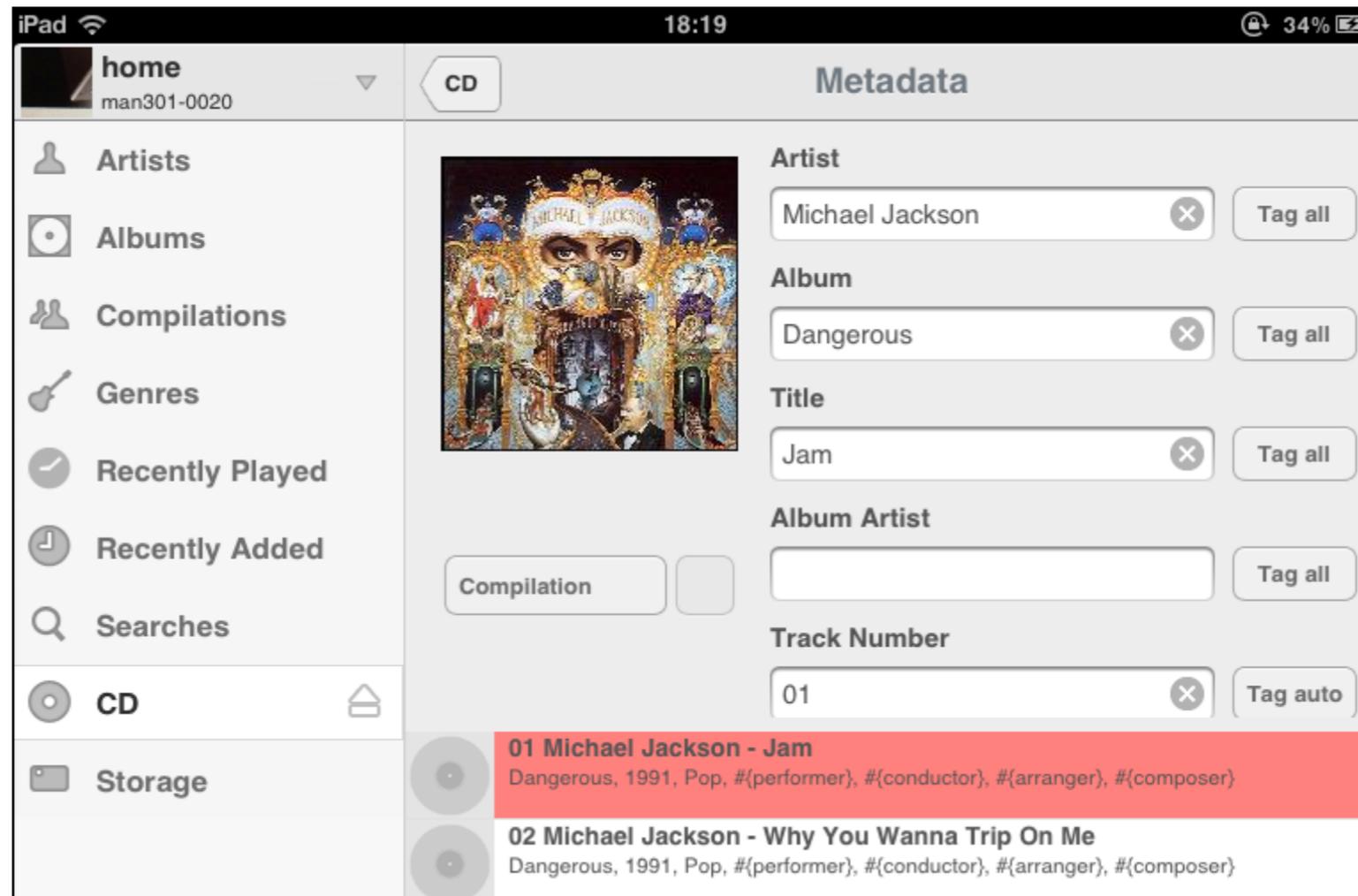
The MAN301 can also be externally synchronized via a word-clock input on a BNC connector. One has to make sure that the external clock source matches the sampling rate of the track played.

**Note: this feature is not yet available with the current software.**

The word-clock output on a second BNC connector can be used to clock e.g. an external D/A converter.

## CHAPTER 4

# CD Ripping, Playback, Meta Data



The MAN301 allows to rip CDs in a high quality manner with automatic meta data and cover art fetching and with extensive error reporting. A full fledged meta data editor allows to take care of those cases where meta data isn't as perfect as it should be. CDs can also be played back without any ripping, i.e. the MAN301 is a CD player as well.

# Direct CD Playback

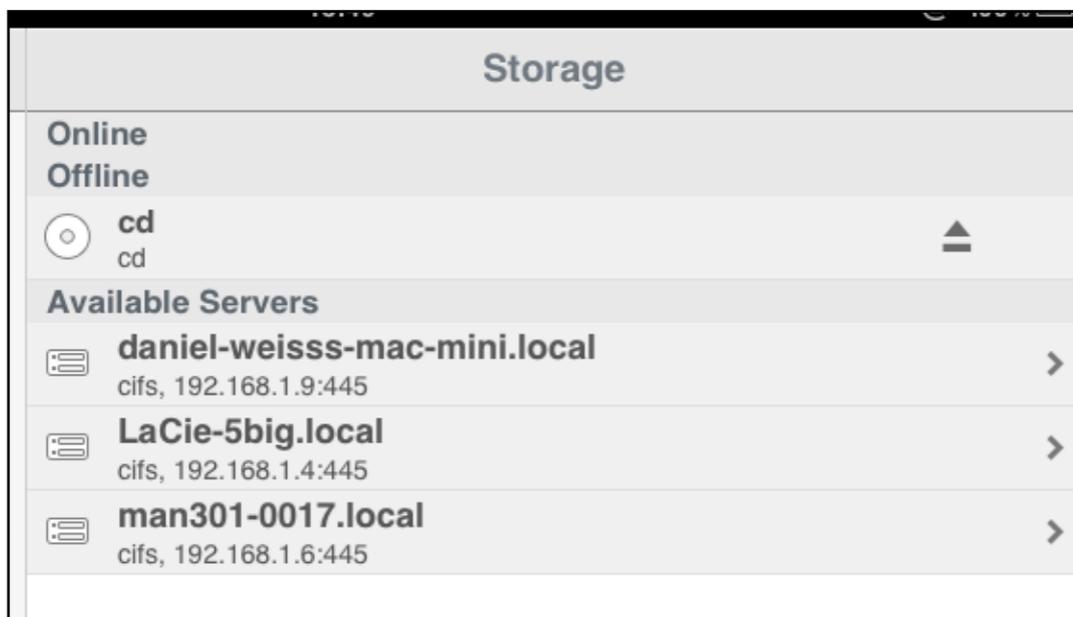
When a CD is slipped into the slot on the MAN301 (artwork facing upwards) a new entry in the menu list shows up:



The  pad allows to eject the CD.

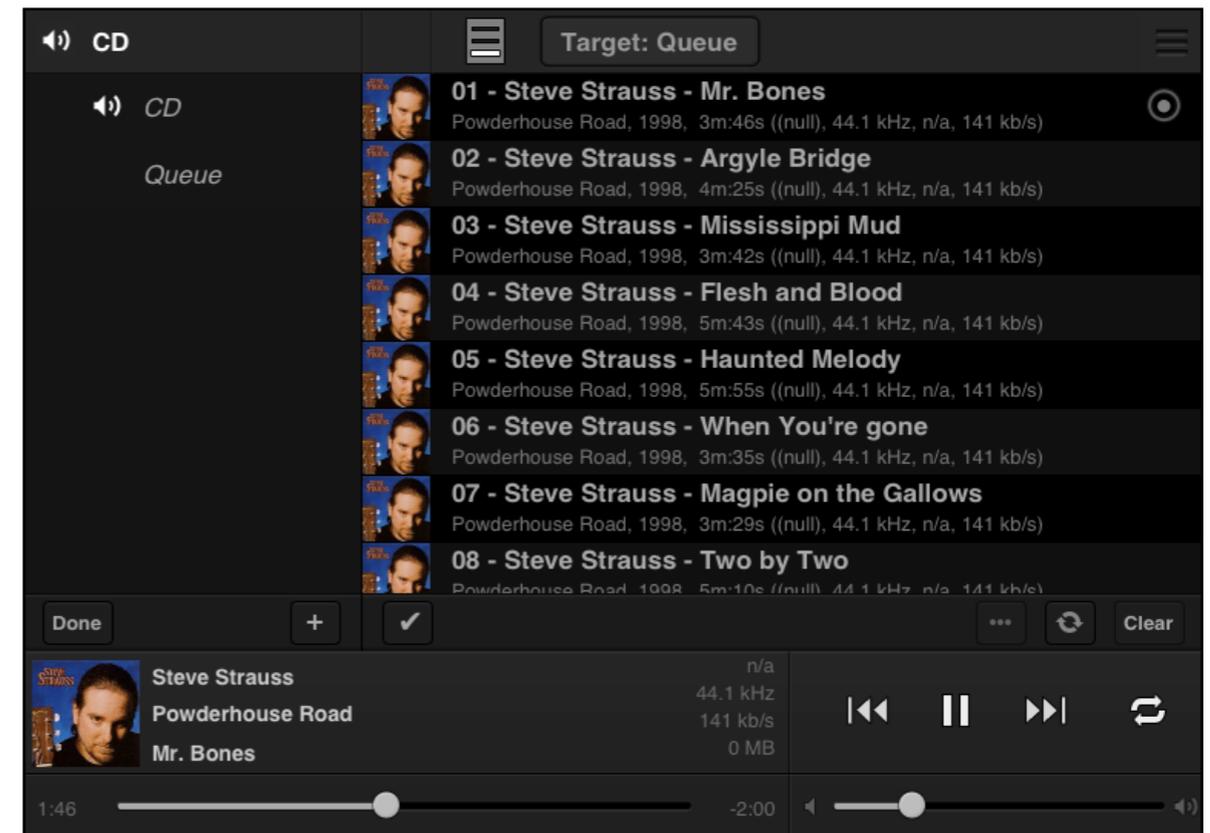
If the CD entry does not show up in the menu list, then the CD can not be read by the MAN301. In that case you can eject the CD via the „Storage“ entry in the menu list: Tapping on the

 **Storage** pad reveals this:



Tap on the  pad to release the CD.

If on the other hand the CD entry has shown up in the menu list, then after a while it also will show up in the Playlist section like this:

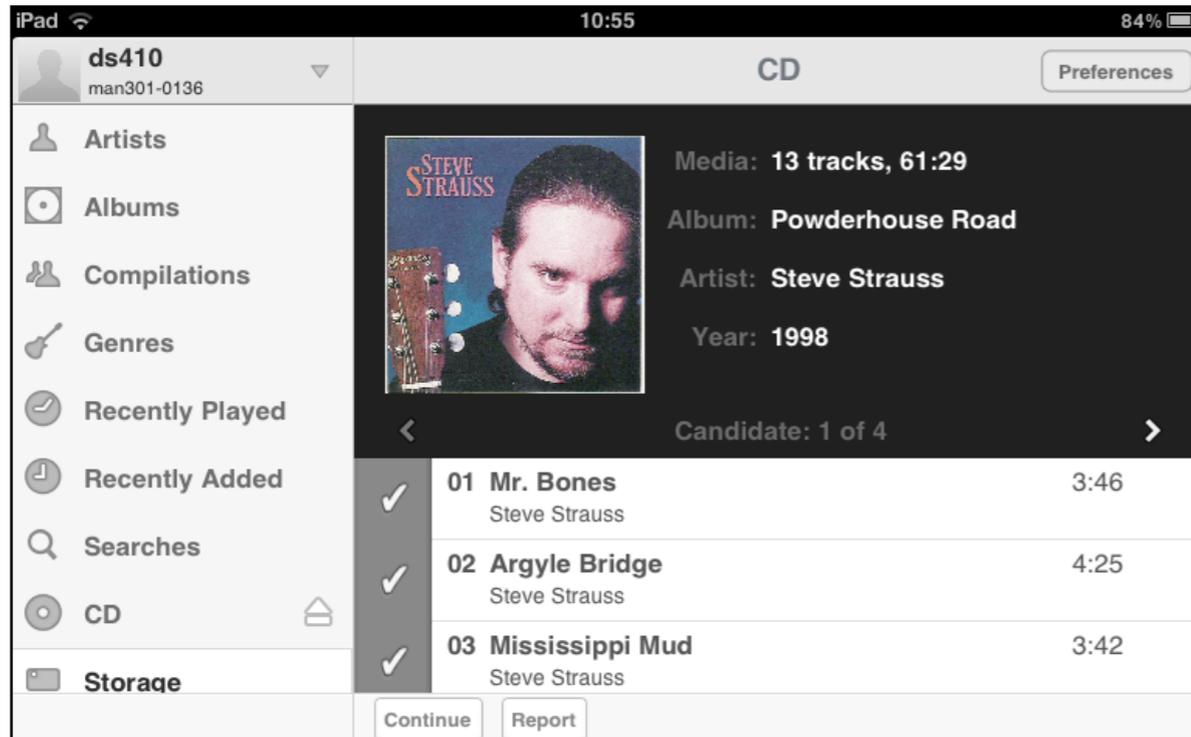


select the CD entry on the left hand side and then randomly select the track number to be played. During playback data is read from the CD and buffered in the MAN301 for subsequent playback via the MAN301's digital and analog outputs.

If you would like to rip the CD tap on the



pad to reveal the CD ripping page as follows:



Here you can scroll through the track names and also see the cover artwork. Actual CD ripping is described in the next section.

To release the CD from the CD slot press on the  pad in the



menu list entry.

**Do not attempt to play back and rip a CD simultaneously as this leads to interrupted playback and / or compromised files.**

Note, the so called slot-in CD drive used in the MAN301 actually is a DVD drive, as CD drives in that technology are not manufactured anymore. It handles the CD with great care.

# CD Ripping

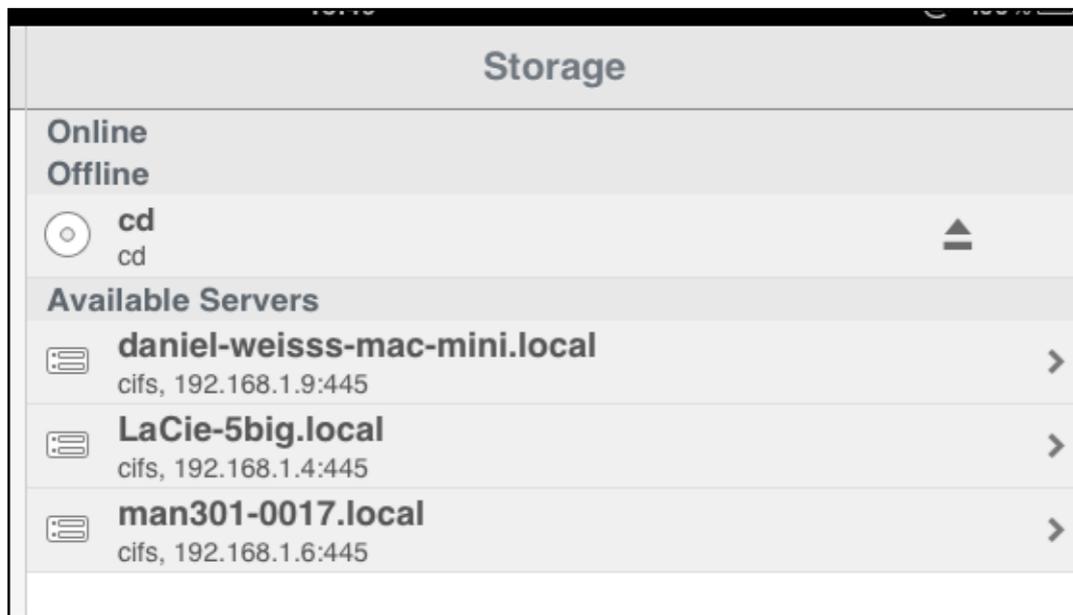
When a CD is slipped into the slot on the MAN301 (artwork facing upwards) a new entry in the menu list shows up:



The  pad allows to eject the CD.

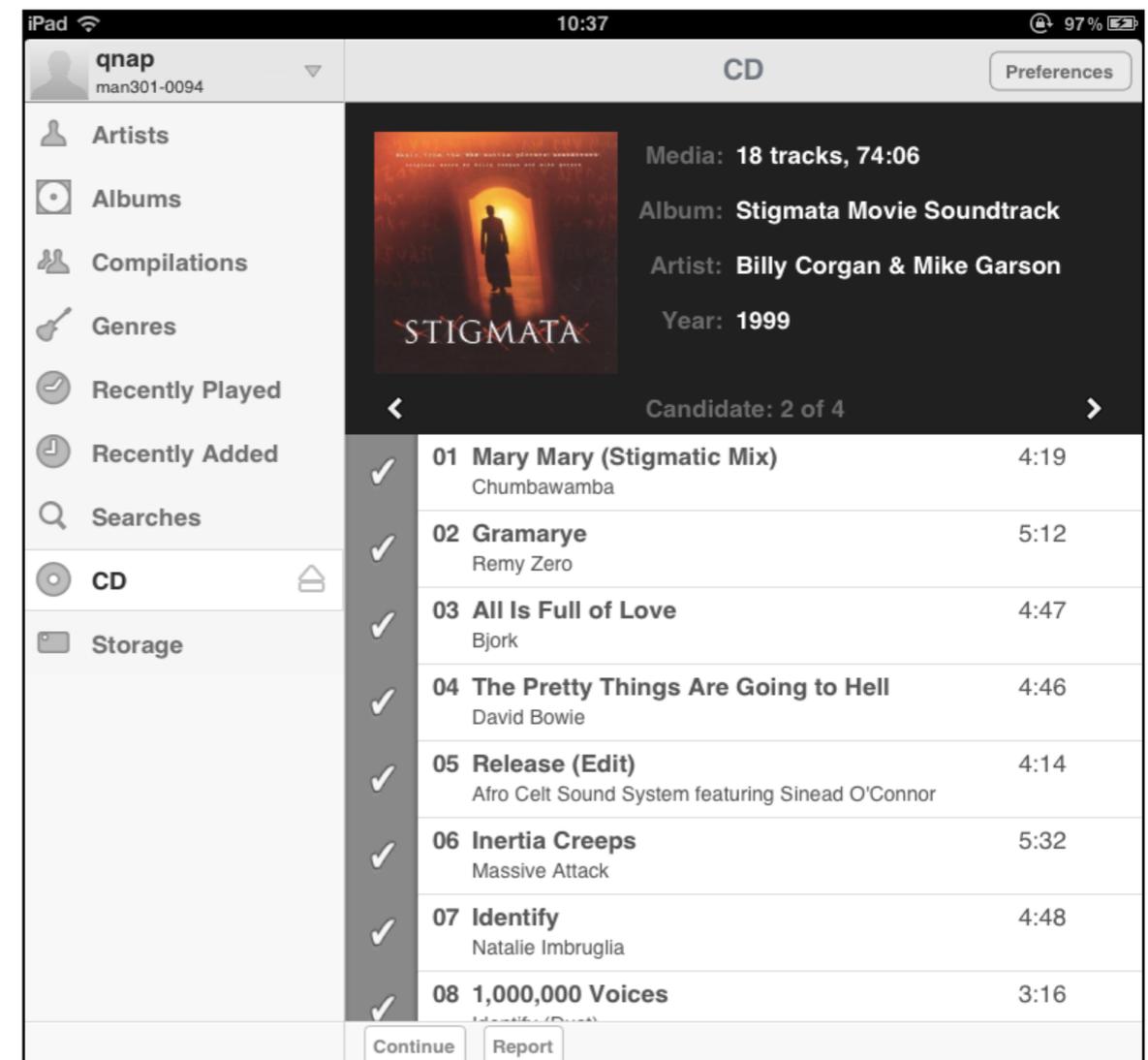
If the CD entry does not show up in the menu list, then the CD can not be read by the MAN301. In that case you can eject the CD via the „Storage“ entry in the menu list: Tapping on the

 **Storage** pad reveals this:



Tap on the  pad to release the CD.

If on the other hand the CD entry has shown up in the menu list, tap on the CD entry. This opens a window which looks like this as an example:



Preferences

The **Preferences** pad in the upper right corner shows a few basic settings which are very important and which you should check in detail:

Destination	/cifs/DiskStation.local/music/Music
Track template	%l/%b/%n-%a-%t
Compilation template	Compilations/%b/%n-%a-%t
Target format	Free Lossless Audio Codec (flac)
Auto eject	Off
Overwrite mode	Name extend

- „**Destination**“, this is the path on the NAS where the ripped music is stored. It contains the name of the NAS and probably a folder name if you have ever set that path before (usually this is set when mounting the NAS for the first time). If you tap on the entry to the right of the Destination the Storage view is opened. Here you can select the main folder where all ripped music is put.

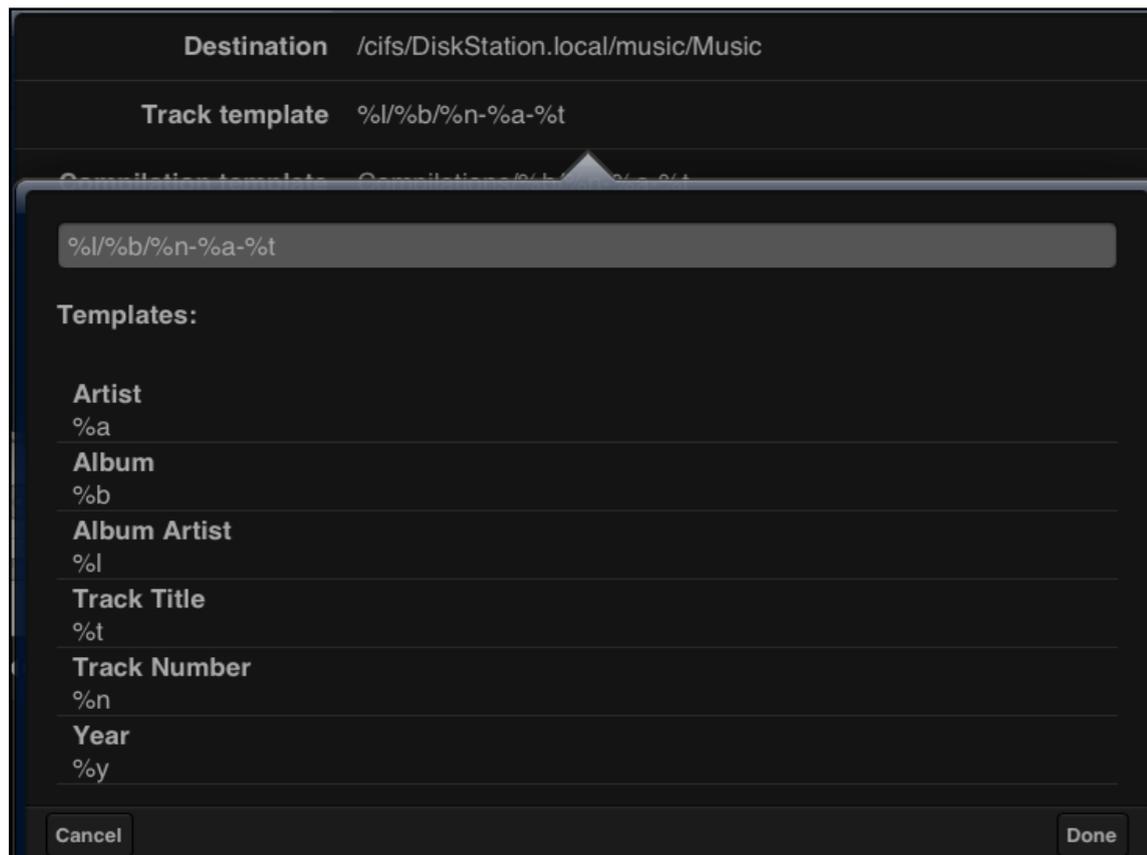
Once you have navigated to the folder tap the

Set as import destination

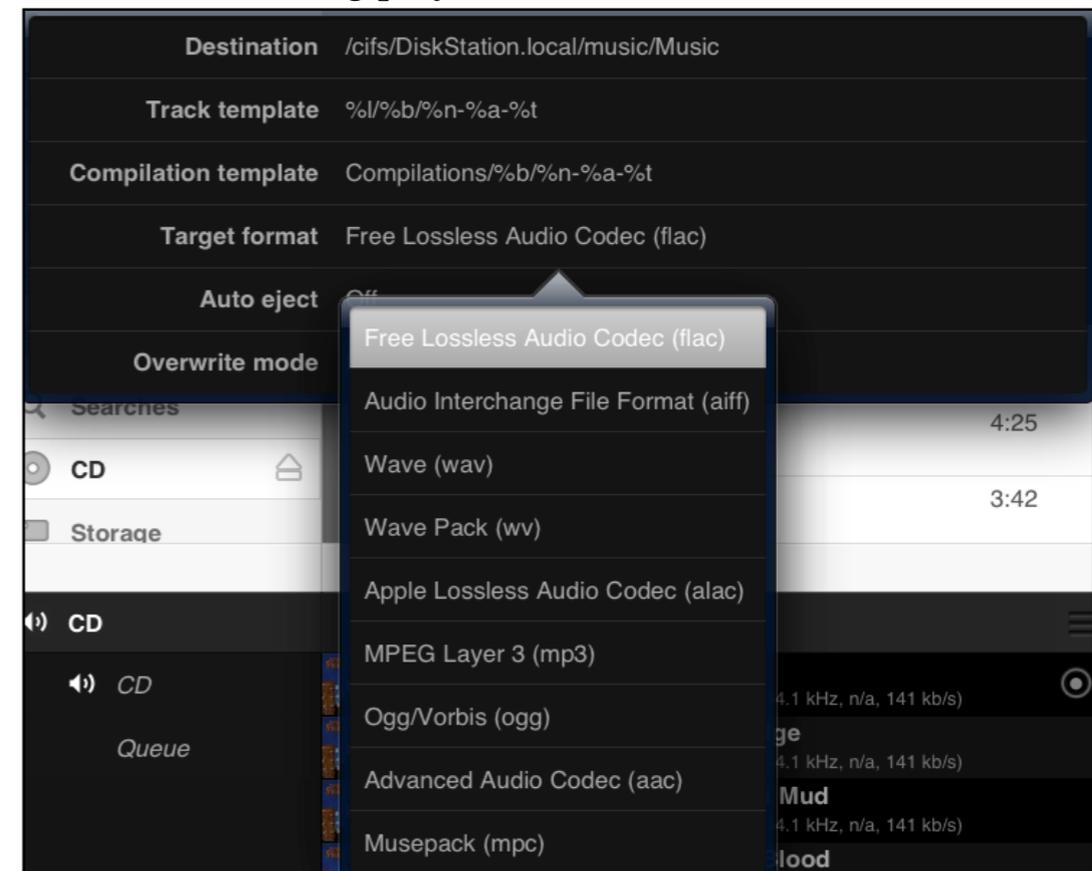
pad. The large grey symbol as shown on the right indicates that this folder is the import destination.



- „**Track template**“, this shows how the folder structure for the audio tracks is built. The default generates a folder for the artist, then a sub folder for the album and then single files for each track. This structure can be edited by tapping on the entry to the right of the Track template. Now tap into the top bar of the newly opened window. Delete the entries and reassemble a new one by tapping on the Templates for Artist, Album etc. as necessary. Also add / to designate folders. Do this editing only if you know what you are doing. In most cases the default entry for the Track template is just fine.

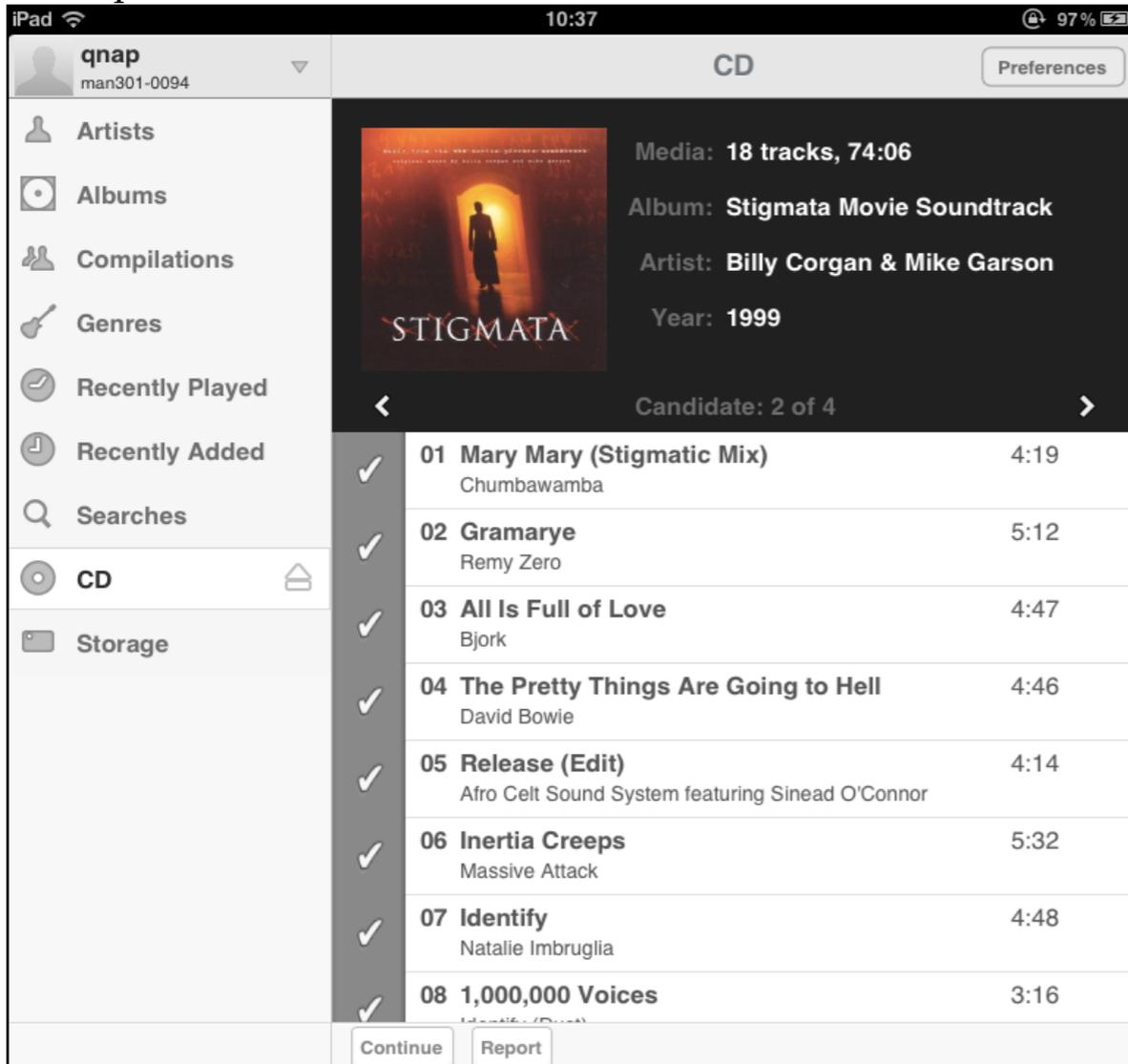


- „**Compilation template**“, this is similar to the Track template, but meant for those CDs designated to be compilations (like e.g. movie soundtracks, label samplers etc.). The default folder for the tracks tagged as Compilations is the „Compilation“ folder.
- „**Target format**“, select the audio format you would like the CD to be ripped in. We recommend the **flac** format or, if you like to play the tracks in iTunes as well, then chose the Apple Lossless (**alac**) format. The following formats are lossy and thus not recommended for High-End quality ripping: **mp3**, **ogg**, **aac**, **mpc**. **Aiff** or **wav** are not recommended because they take up about twice the storage space compared to flac or alac but do not generate better sounding playback.

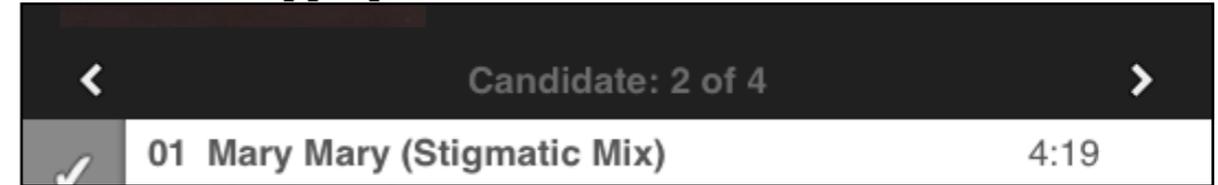


- „Auto eject“, if on, the CD is automatically ejected after ripping.
- „Overwrite mode“, if on Overwrite, duplicate CDs will overwrite the existing files. Name extend allows to have duplicates.

In that „Stigmata“ film sound track example 3 different meta data entries have been found on the Internet (see line Candidate: 2 of 4) in the picture below.

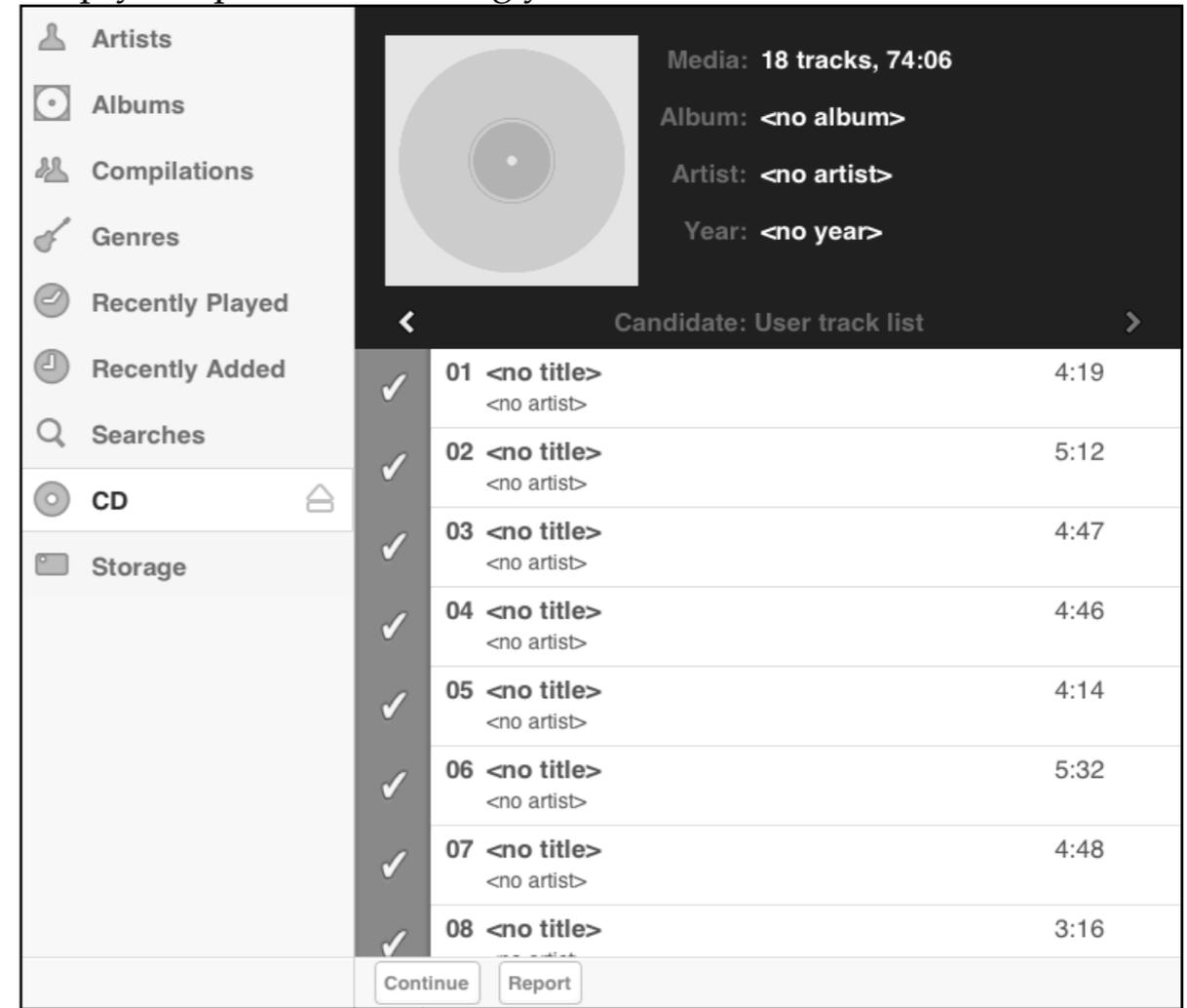


With the left / right arrows the different versions can be viewed and the most appropriate selected:



Most CDs only yield one entry. The last entry (the 4th in that example) is an empty template where you can type in your own text. This is useful when no meta data has been found on the Internet.

Empty template for entering your own metadata:



The cover artwork is also fetched from the Internet. If you do not like the artwork or if there isn't any, you can always change it in the next step or after ripping the CD.

Now the tracks to be ripped can be selected, usually all of them are ripped and thus the default has all of them selected. Tapping on

**Continue**

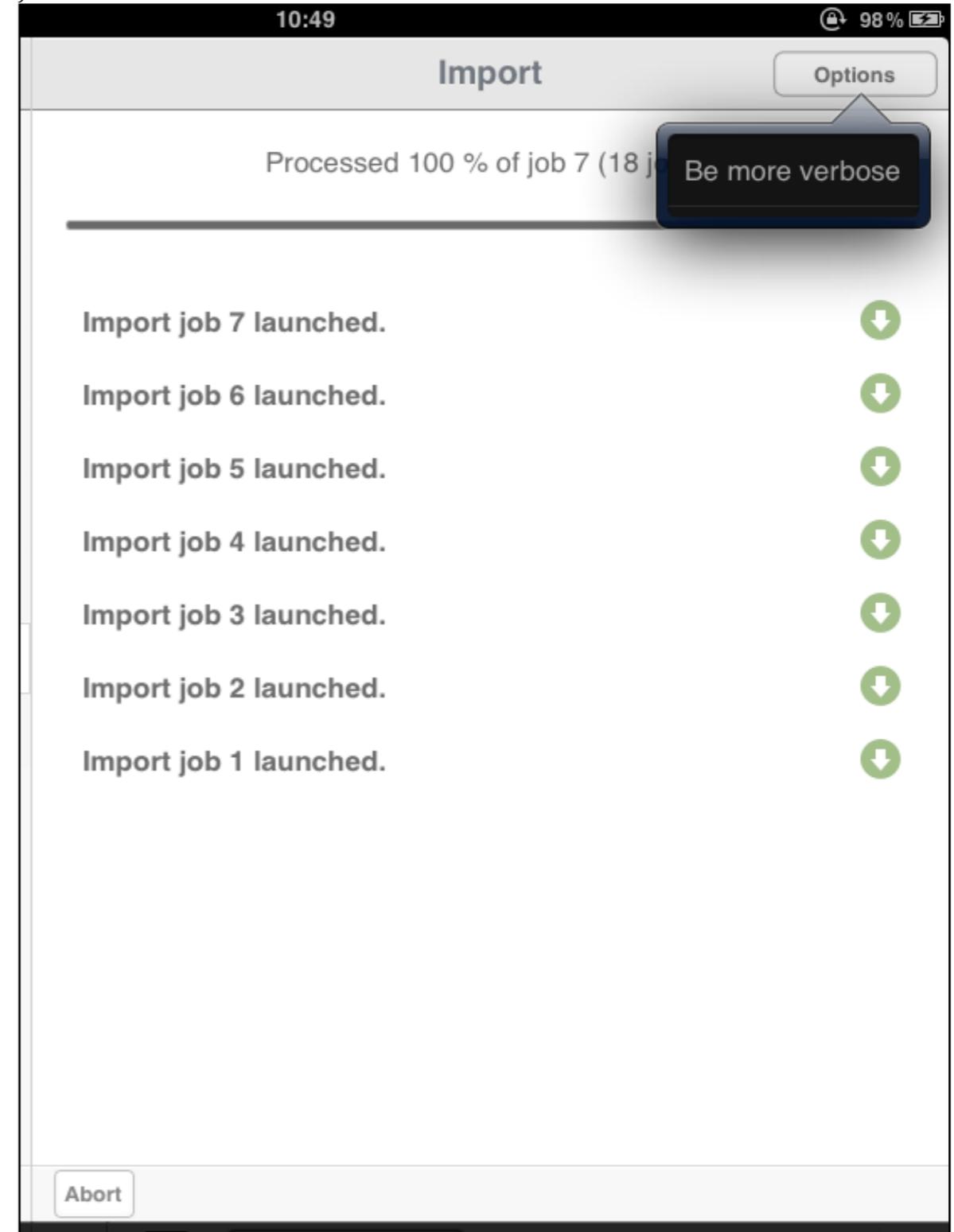
the **Continue** pad moves to the next window where the meta data can be edited. Details on meta data editing are found in the next section. Tapping on the cover art allows to select a different or better one from an Internet search. Of course this can always be done later on, after ripping, as well.

**Import**

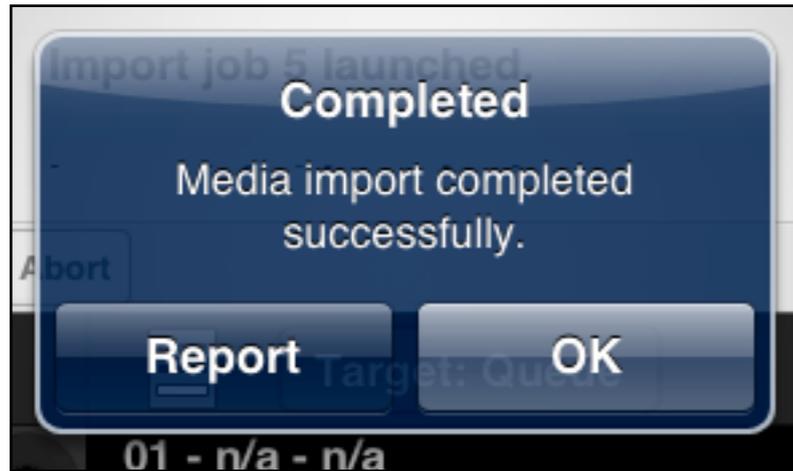
Tapping then on the **Import** pad starts the ripping process. The ripping may take some time, also depending on the physical quality of the CD. The MAN301 uses the Cdparanoia ripping software which takes care that the CD is ripped in the best way possible. After ripping a report is generated which lists any severe ripping errors for each track and with time stamps. The ripping reports can be stored in files and retrieved later on for reference.

The „Be more verbose“ pad under the „Options“ pad currently does not have any function.

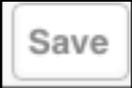
The screen during CD ripping. Each track on the CD is a „Import job“:

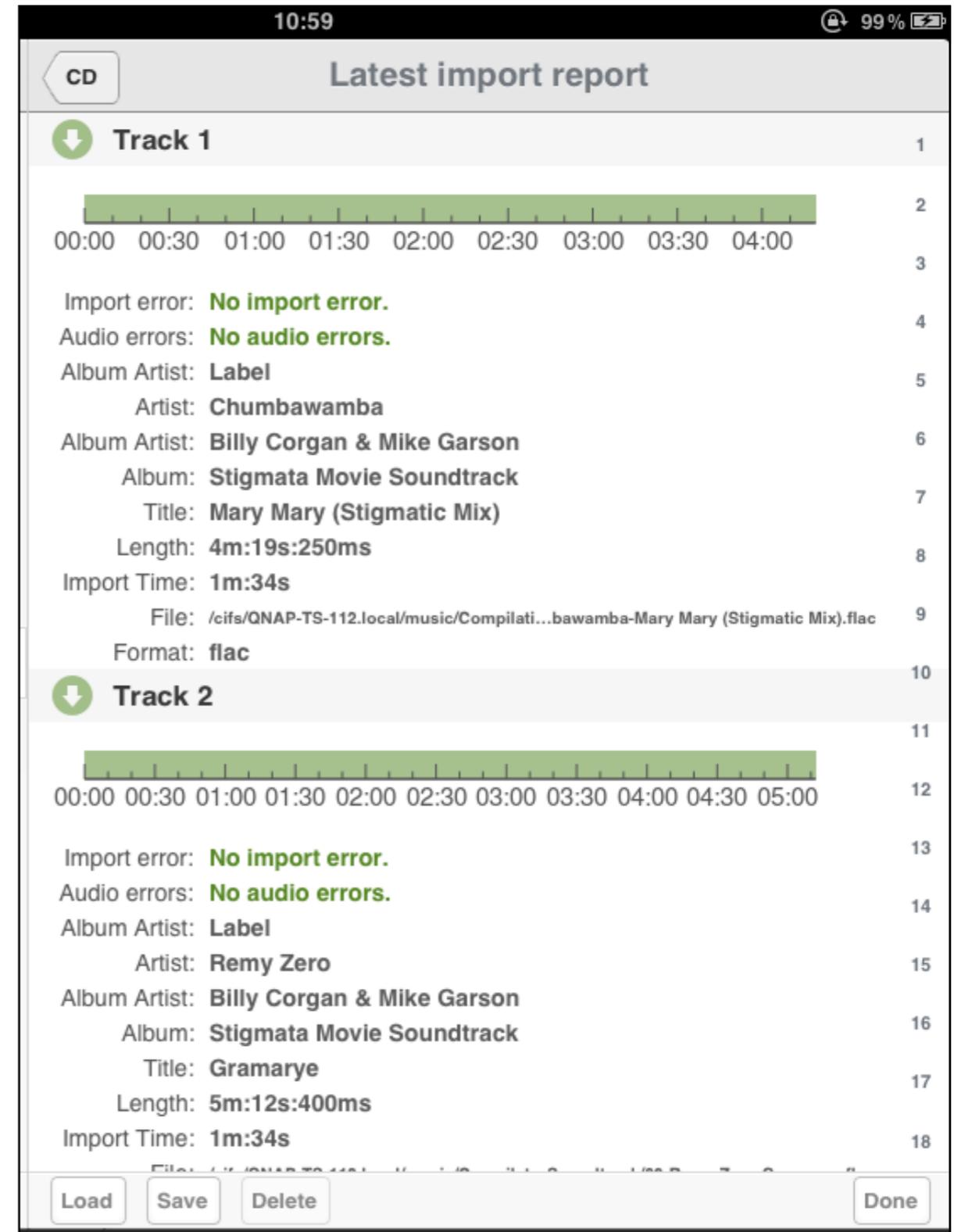


Once the importing has finished this message shows up:



Tapping on the Report pad shows a report similar to the one shown to the right. The report can be saved for later retrieval via

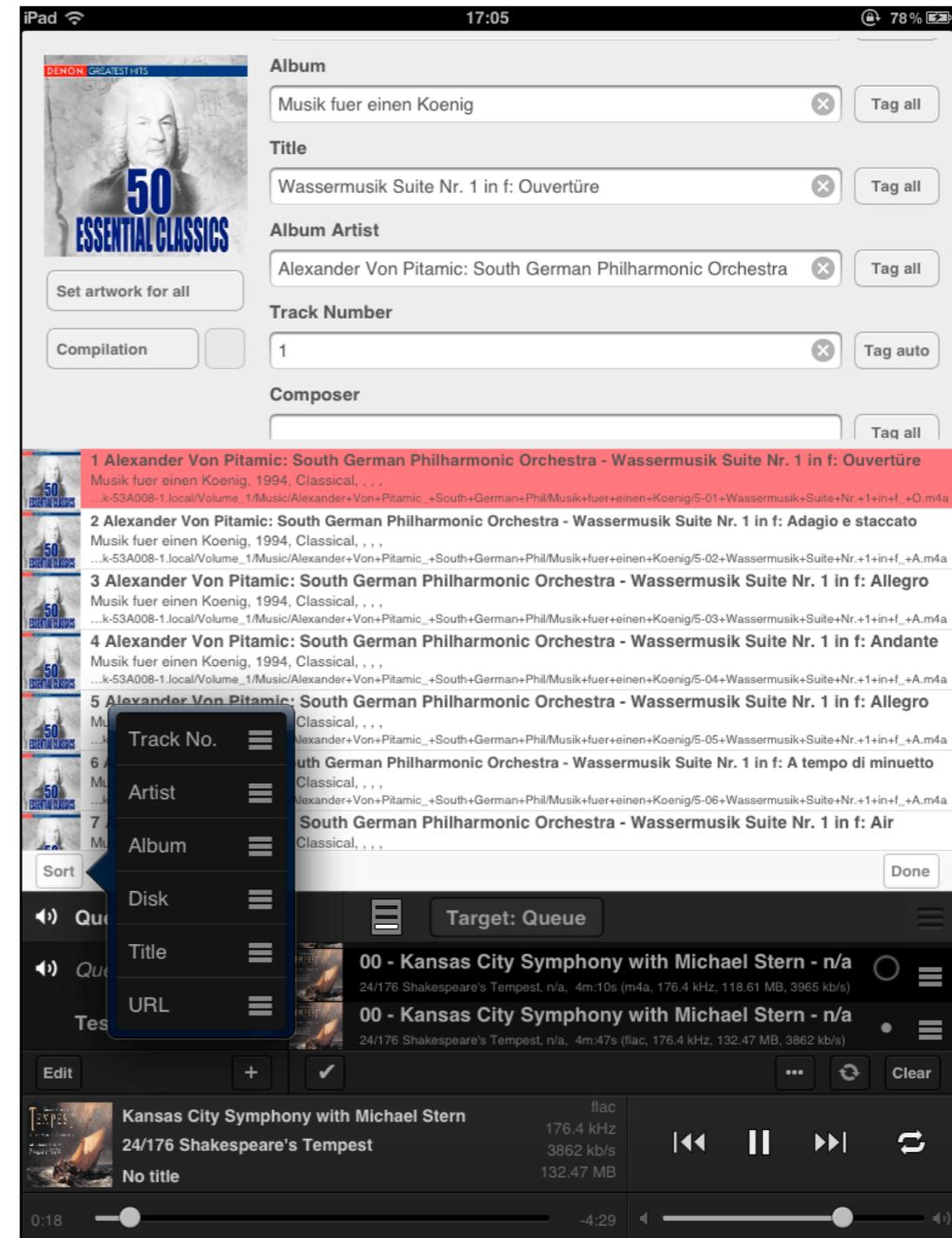
the  pad.



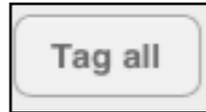
# Meta Data Editing (Tagging)

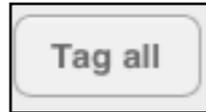
The meta data editor (or tag editor) can be entered from a number

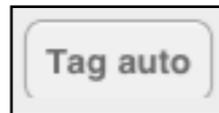
of places, for instance where the  pad is shown, often the „Edit tags“ can be selected. Or before or after ripping of a CD the Edit tags can be entered as well. The tag editor looks like this:

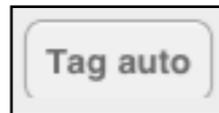


The upper section can be scrolled to view more tags. The lower section lists the tracks of the CD (if a whole CD was selected for tagging). It is possible to tag just a single track, say if the track name was misspelled, or to tag all tracks at once, say if the artists name



needs to be changed. Tapping the  pad sets the appropriate tag in all tracks to the same value.



For the Track Number tag, there is a  pad. This automatically numbers the tracks starting with 1.



The  pad opens the window as shown above. The entries in

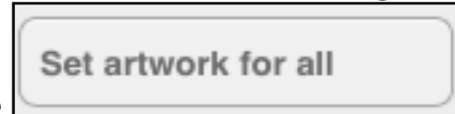
that list can be rearranged with the  handles such that the ordering of the tracks is according to your requirements. I.e. in the example shown above, the tracks are sorted according to the Track Numbers as the Track No. is the top entry.

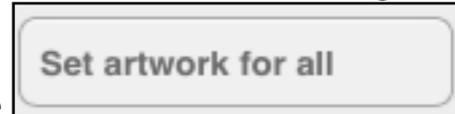
The „URL“ entry means the file name including path (i.e. the URL) which is also shown in the track list (fine print).

Tapping the artwork in the upper left corner starts an Internet search for fetching new artwork. The first entry with „Source: current“ is the artwork currently in use with the metadata database. The next entry (or entries) with „Source: cache“ shows artwork which is stored in folder(s) on the NAS containing tracks of the currently selected CD.

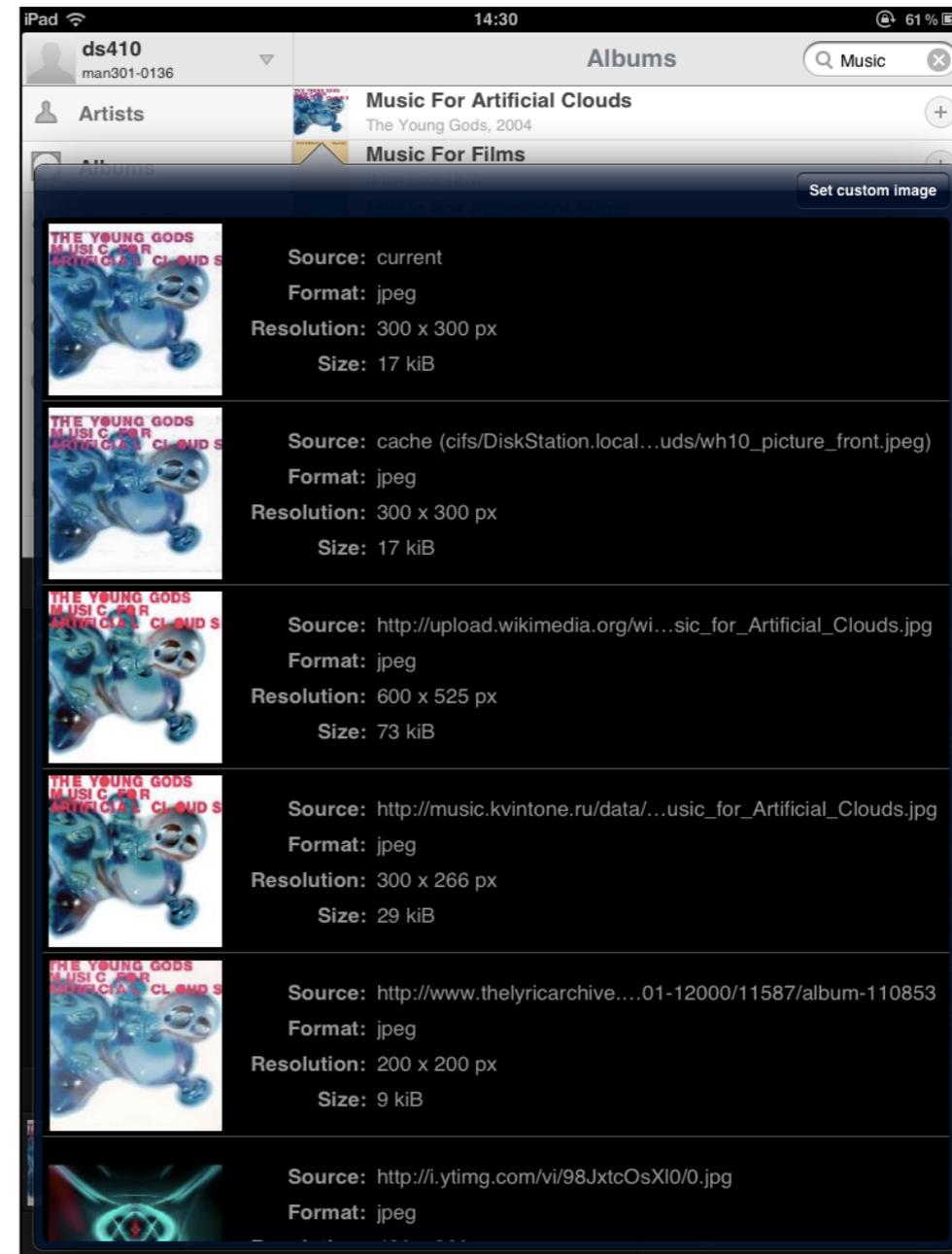
The entries further down show newly fetched artwork from the Internet. Compare the newly fetched artworks for size and resolution and select a new one by tapping on it. If you do not like to change the cover art simply tap somewhere outside the window.

Choose artwork at the best possible resolution and the largest size.



After setting new artwork tap on the  pad to have all tracks tagged with the correct artwork. (Except you would like to have different artwork for different tracks).

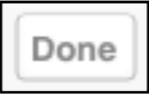
Example of a cover art search:

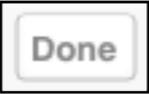




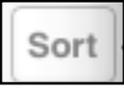
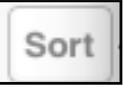
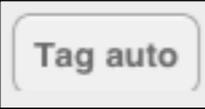
The  pad should be tapped if the CD is a compilation with various different artists. If it is a compilation CD then it is recommended to fill in the  tag with e.g. the main artist on the CD or the composer etc.

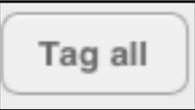
If the meta data of a CD to be ripped is not found on the Internet, the meta data can be entered via the tag editor. With the convenience of the MAN301 tag editor this can be done rather quickly.



After finishing the tagging tap on the  pad in the lower right corner.

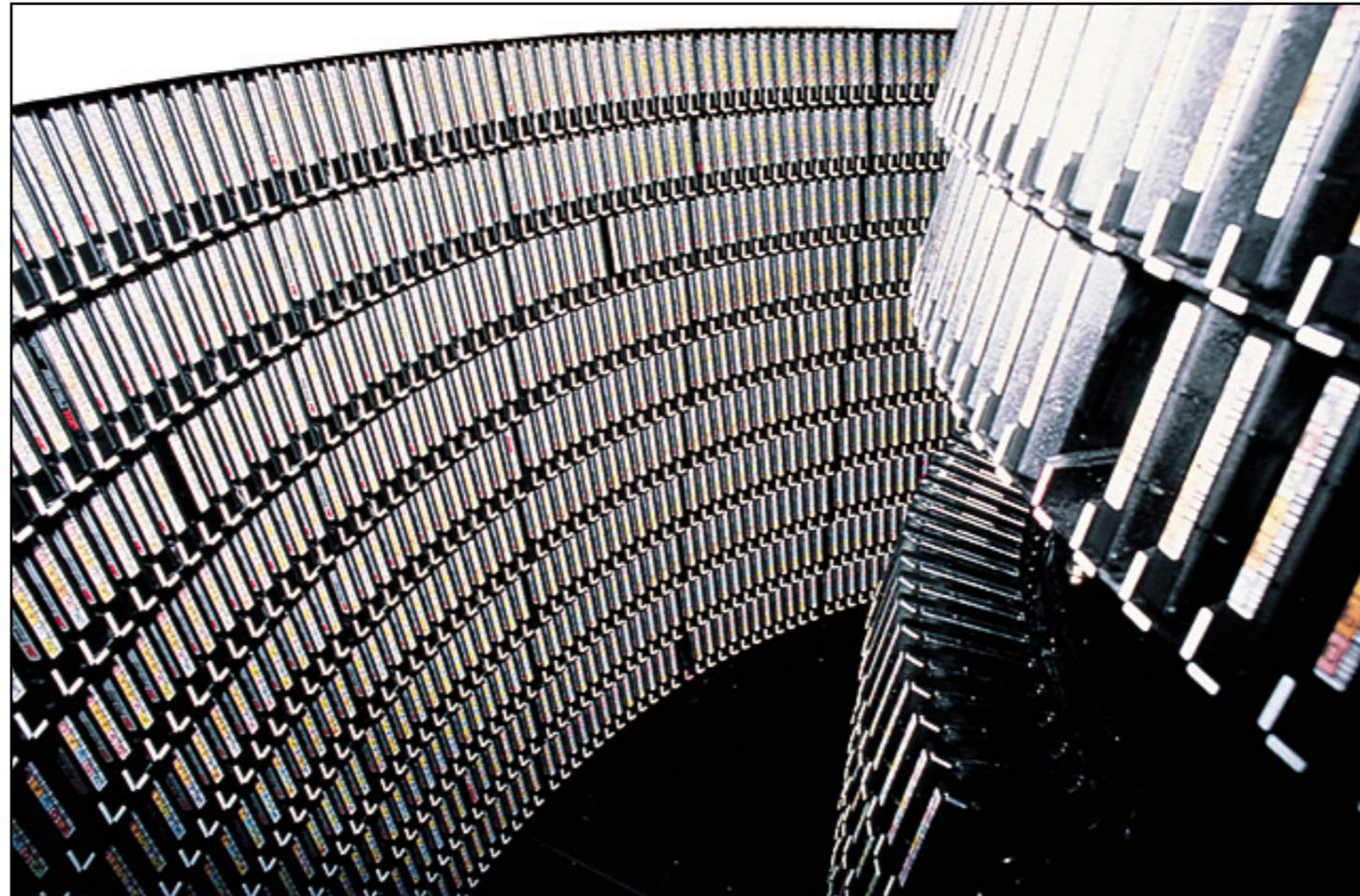
### A few tips for tagging:

1) If the disk / track numbers are not set in the meta data, but the file names begin with disk / track numbers then the disk / track numbers can be set easily: Select all the tracks for meta data editing, sort the tracks by file name, (i.e. tap on the  pad, move the URL entry to the top and tap on the  pad again). Then tap on the  pad at the track number entry of any of the tracks.

2) Select the tracks to be tagged, enter the tag editor (Edit tags pad). Then select a correctly tagged track. Then tap on the  pad at the tags which have to be fixed. This copies the correct tags to the incorrect / empty tags.

## CHAPTER 5

# Mass Storage



A few words on the selection of a Network Attached Storage (NAS) device or a USB hard drive.

# Mass Storage



The storage device for holding the music files is a main component of the system and should be chosen with the utmost security for your precious music files in mind.

The MAN301 system supports various storage devices such as:

- NAS units (Network Attached Storage, connected via the network) which can be typical NASes as pictured above but can also be public folders on any computer on the network.
- DAS units (Direct Attached Storage) like USB or FireWire hard disks, USB memory sticks, Apple devices (iPad, iPhone, iPod)

A proper source for the audio files is mandatory, i.e. do not use storage devices which are connected wirelessly and use a pristine link between the MAN301 and the NAS, i.e. use **Gigabit** type routers and switches.

*Note: Maybe you consider to use a USB hard drive as the storage medium. The problem with simple USB drives is that they often use just a single hard disk and thus do not offer any inherent security for your audio data. In such a case it is strongly recommended to back up your USB drive on a regular basis, unless you do not mind to lose the audio files due to a hard disk crash.*

*If you plan to build a decent music library we strongly suggest to use a NAS type mass storage solution.*

***Weiss Engineering can not be made responsible for data losses due to hard disk crashes or MAN301 software inadequacies.***

With mass storage devices there are two security measures to be taken: The protection against hard disk crashes and the protection against damages caused by accidental erasing, theft, fire, water etc.

**A NAS is the preferred device for a MAN301 system**, as most NAS units have some security measures already built in. NAS devices are available in several configurations, like e.g.:

**1) With a single hard disk.** This configuration should only be considered if a periodic backup of the data on the hard disk is made. We do not suggest to use such a solution. The useable capacity of such a NAS is the size of the disk.

**2) Two hard disks.** This configuration can be operated in the RAID1 mode which is highly recommended. (RAID = Redundant Array of Independent Disks). RAID1 means that one of the hard disks holds a copy of the other one, thus one of the disks can fail without the risk of loosing any data. The useable capacity of such a NAS is the size of a single disk.

**3) Four or five hard disks.** This configuration usually can be operated in the RAID5 mode, which means that any one of the hard disks can fail without the risk of loosing any data. The useable capacity of such a NAS is the size of all disks combined minus the size of one disk. E.g. a NAS with four 1TB disks offers a capacity of 3TB.

**4) Six to ten hard disks.** This configuration usually can be operated in the RAID6 mode, which means that any two of the hard disks can fail at the same time without the risk of loosing any data. The useable capacity of such a NAS is the size of all disks combined minus the size of two disks.

The RAID configurations above take care that it becomes very unlikely to loose any data because of hard disk crashes. For further safety (prevention from accidental erasing, theft, fire, water etc.) the data has to be copied to a different storage device which is put to a different place, preferably in a different house. Alternatively a cloud storage service can be used, where the data on the NAS is automatically uploaded to a storage service on the Internet. This happens in the background without user interaction. Such services cost a few Dollars per month with virtually unlimited storage capacity.

Another concern regarding NAS devices is the acoustic noise they generate. There are smaller NAS devices available which are very quiet and thus can be put in the listening room. Larger NAS units often have a fan which can be noisy. Such NAS units have to be stored outside the listening room.

**To estimate the necessary size of the NAS these figures may help:**

A 1TB (1 Terabyte = 1'000GByte = 1'000'000 MByte) harddisk holds approximately:

- number of CDs in an uncompressed format (AIFF, WAV): more than 1000
- number of CDs in a losslessly compressed format (FLAC, ALAC): more than 2000
- hours of music in 96/24 (stereo), losslessly compressed: approx. 480
- hours of music in 192/24 (stereo), losslessly compressed: approx. 240

With the MAN301 system one can always add another NAS if space runs out.

It is advisable to think about the data structure on the NAS before setting it up and copying music. The following factors may determine whether it is better to have several main folders or just a single „music" folder:

- number of persons using the same NAS
- music tastes between the persons
- size of the collection

If several persons access the NAS it may be advisable to organize the collection in several folders, e.g. one folder for each person or folders with different music styles. It is still possible for all persons to access all files via the MAN301, but with such a structure it is easy to exclude some folders from a persons library.

If the collection is large it may also be advisable to divide it into a few folders. This would allow to set up a few users in the MAN301, each accessing a part of the whole collection, like e.g. one user for the Classical section, one for Pop etc. This can make a large collection easier manageable.

A few of the most popular NAS manufacturers:

Western Digital  
Synology  
QNAP  
D-Link  
Acer  
LaCie  
Netgear  
Buffalo  
Seagate/Maxtor  
Certon

Certon is offering a special NAS for High-End audio applications. Its name is Integrita. See <http://integrita.de>



## Details on supported file protocols in the MAN301

### Mount types:

**A) NAS** ('network-attached storage' ); supported protocols are:

- **CIFS** (Common Internet File System, a.k.a. 'SMB' / 'Samba' / 'Microsoft-DS'), TCP-port 445
- **NFS** (Network File System), TCP-port 2049
- **AFP** (Apple Filing Protocol), TCP-port 548, (not yet supported by the MAN301)

**B) DAS** ('direct-attached storage'); attached via USB or FireWire, supported file systems are:

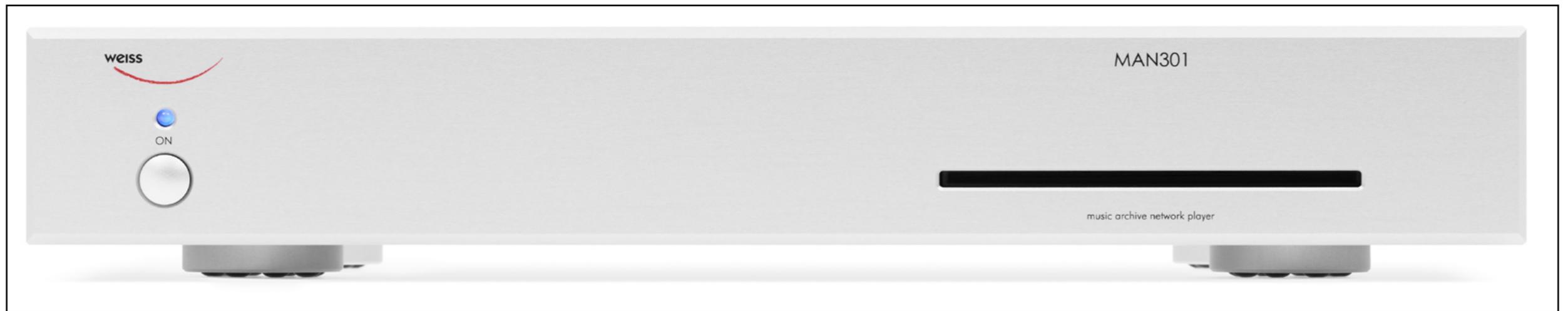
- **FAT** (File Allocation Table)
- **NTFS** (New Technology File System)
- **HFS+** (a.k.a. 'Mac OS Extended') **Note:** 'Journaling' should be disabled in order for the MAN301 to access with write permissions (Journaling can be changed in the 'programs / utilities / disk utilities' program). Also for HFS+ the music folder and all sub-folders have to be allowed to be accessed by ALL users with read / write rights.
- **iOS** based devices (Apple iPad, iPhone, iPod, etc.)  
Hint: the iTunes music is normally located under <iTunes\_Control/Music>, randomly scattered among a set of directories. Note: only mountable as 'read-only'.

**C) Data CD/DVD;** supported files systems (read-only) are:

- **ISO9660** (a.k.a. 'CDFS')
- **UDF** (Universal Disk Format)

## CHAPTER 6

# System Maintenance



Updating the MAN301 software, connecting other storage devices, a word about routers and switches, FAQ and more.

# System Maintenance

## Software updating

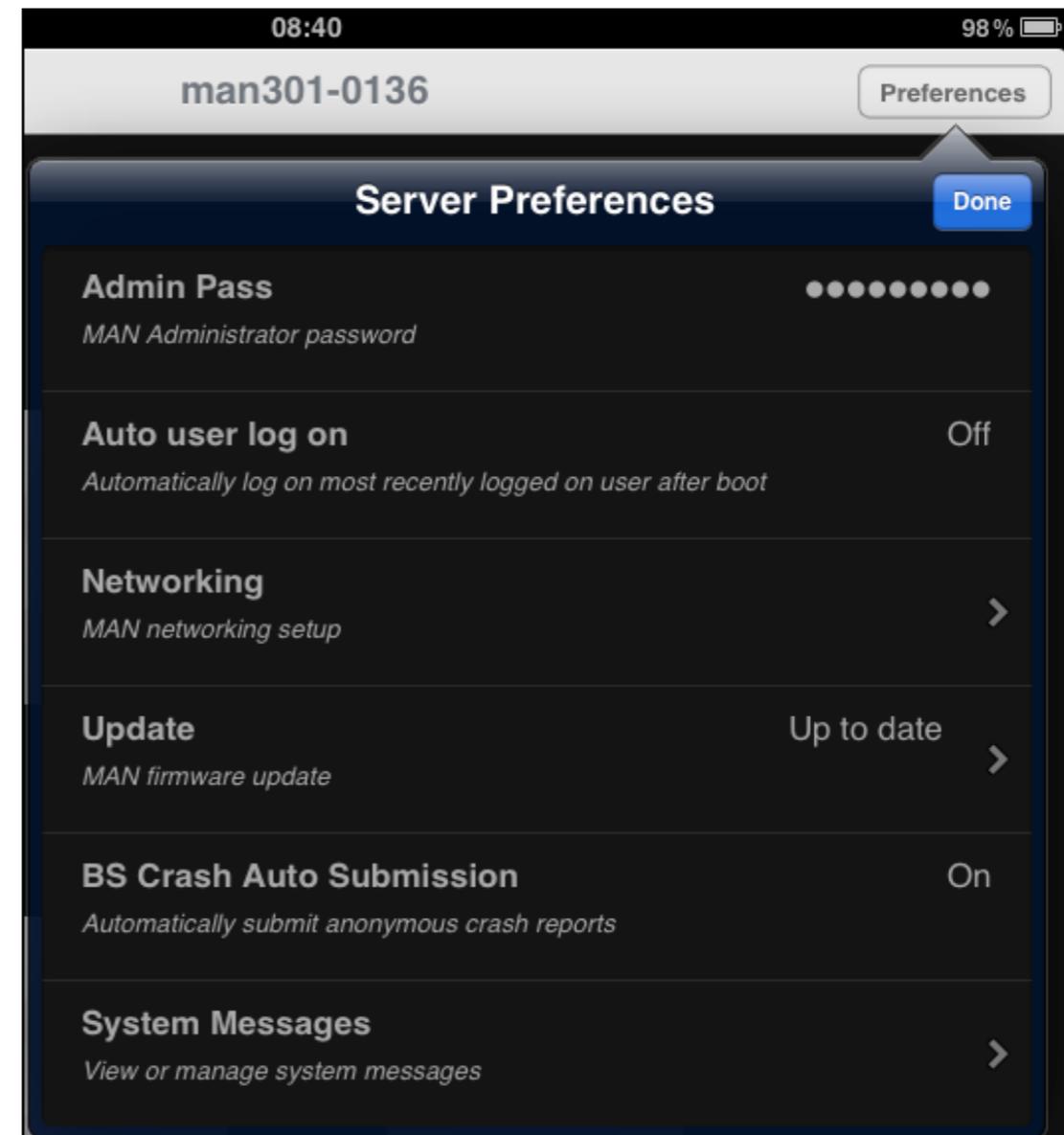
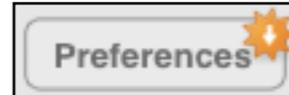
Both the Weiss MAN app and the MAN301 firmware can be updated by the user.

The Weiss MAN app needs to be downloaded from the app store, Tap on this icon on your iPad:



This connects to the Apple app store. Search for Weiss MAN to get the latest version of the app.

The MAN301 firmware can be updated via the Server Preferences page. If there is a new firmware available for download, the Preferences pad looks like this:

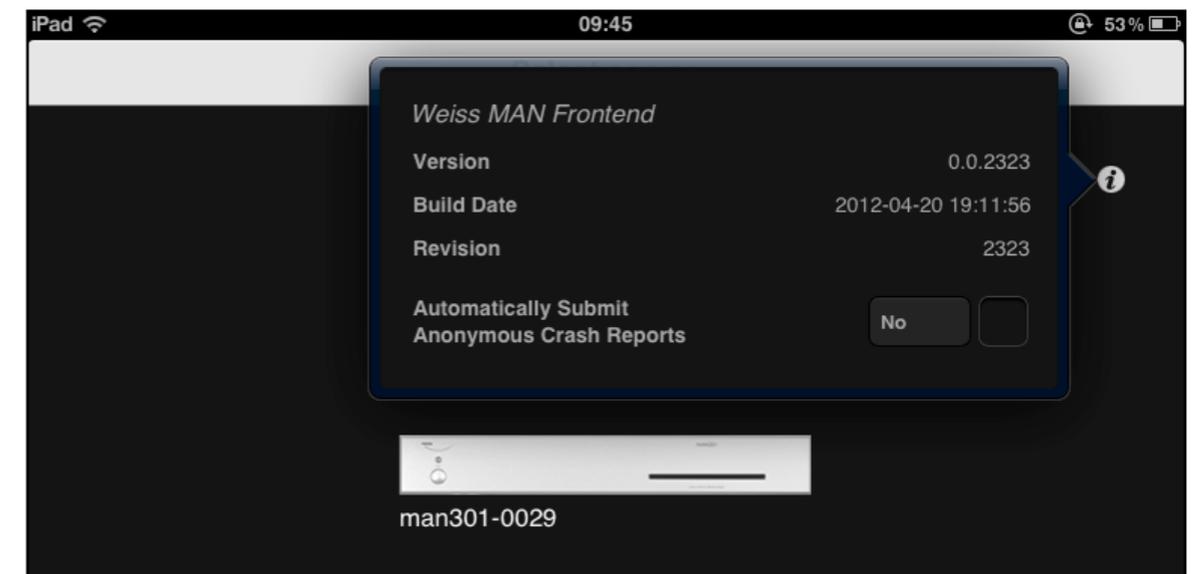


Tap on the „Update” pad to get here:



Before starting the update check the **Minimum frontend version** entry and check the version of the Weiss MAN app on your iPad (iPad Weiss MAN app = frontend) for the proper version. If necessary download the latest Weiss MAN app first.

The version of the Weiss MAN app you can check here, i.e. tap on the **Select server** to get back on the server select page and tap on the **i** pad :

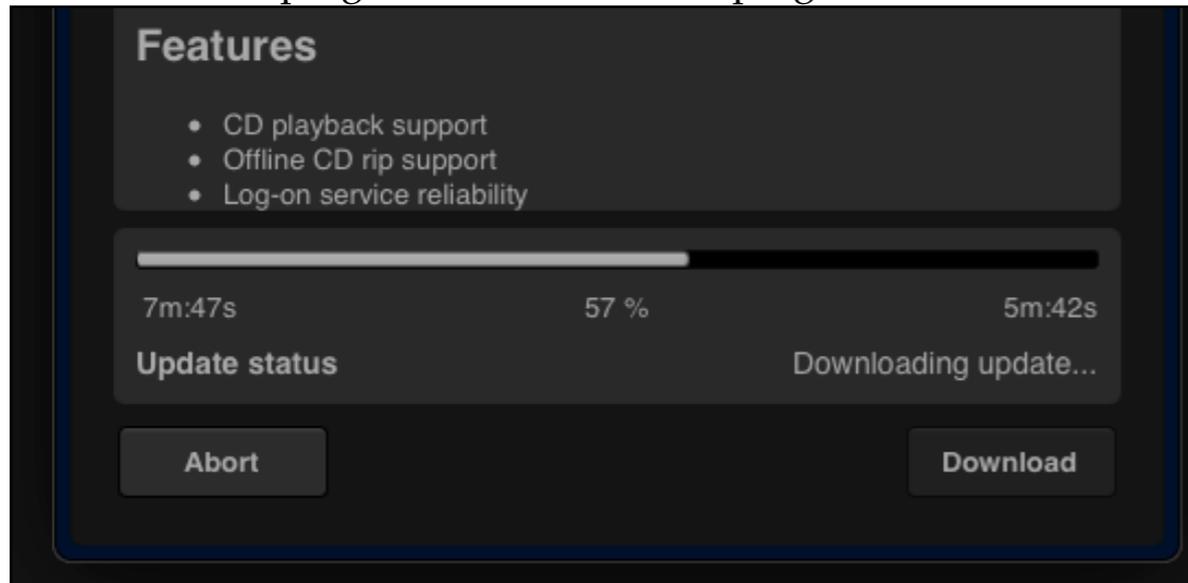


After you have verified for the proper Weiss MAN app version you may start the download via the **Update** pad.

Note, the download may take quite long depending on the speed of your internet link. The MAN301 firmware size is several 100 MByte.

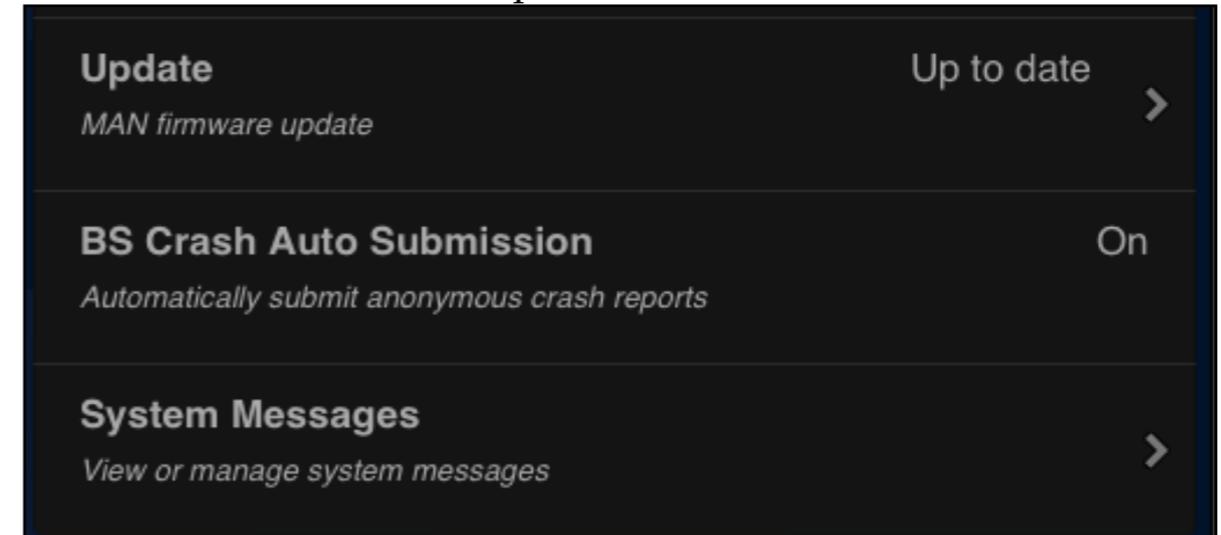
All your library entries, playlists and user accounts will remain intact.

The download progress is shown with a progress bar:



The bar may move from the left to the right more than once. After updating, extracting etc. the MAN301 will reboot. Just wait until it has finished.

After rebooting you check again the Server Preferences, it will show that the firmware is up to date:



## A word on routers and switches

Most of the configurations mentioned in Chapter 1 / Section 2 use a Router device. This device can fulfill many tasks, some of them can be:

- routes the Ethernet data between sources and destinations as required
- assigns IP addresses (network addresses) to the various devices connected to the network
- connects to a wireless network (WiFi) in the case of a WiFi router
- connects to a modem device to gain access to the Internet
- establishes a Firewall to protect from intruders

A Switch device looks similar to a Router, but has a very limited functionality in that it simply acts as an Ethernet port „extender“ in order to be able to connect additional devices to the network.

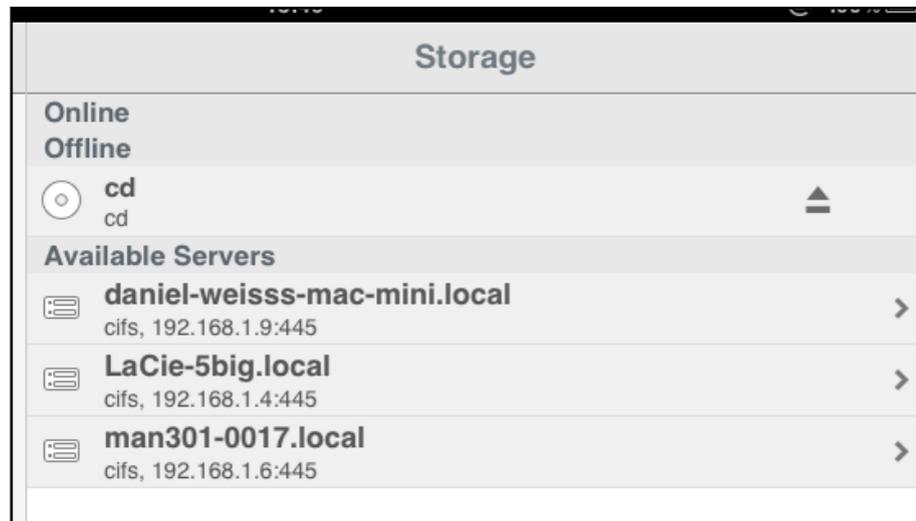
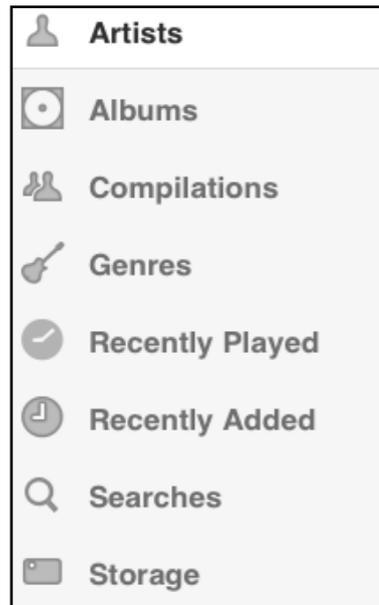
The performance of a setup in terms of data throughput, latency etc. mainly depends on the NAS and the Router / Switches used.

It is **highly recommended** to use devices (Router, Switch (if any), NAS) with **Gigabit** ports. Sometimes also denoted 1000M ports, as compared to the much slower 100M or 10M ports. Do not use devices which sport 10M only, those are too slow for the purpose of listening to high resolution music. A 100M port may work in most cases, but the processors in those devices may not be able to sustain the necessary data rate in worst case situations (lots of network traffic, WiFi traffic). This then can result in interrupted music playback.

# Frequently Asked Questions

**Q1:** A CD is stuck in the CD slot, how can I remove it?

**A1:** Navigate to the Storage menu:



and tap on the  pad to release the CD. If this does not work then log off the user and switch off the MAN301 unit. If the unit's green LED does not stop flashing then press on the power switch for a few seconds until the LED goes off. Now power up the MAN301 again and wait until it has booted and shows up on the iPad. This may take several minutes under these circumstances, just be patient. Once it is about to boot successfully, the CD will be ejected.

**Q2:** I can't log onto the server (the MAN301 unit), it says „could not connect to logon service“.

**A2:** On the iPad WiFi setup page navigate into the network the iPad is connected to and tap on „forget this network“. After that reconnect the iPad to that network again. (Note you may need to know the password for that network to be able to login again).

If this does not help try rebooting the MAN301. Allow for some time (one to two minutes) to boot the MAN301.

**Q3:** I have forgotten the password of my account.

**A3:** You can change the password of any user via the administrator password by tapping on the user avatar for 2 seconds or so and then select the „change password“ menu. There you enter the administrator password instead of the old user password and en-

ter the new password as required. The default administrator password (if it has not been changed) is wh10admin.

**Q4:** I connect my Medea D/A Converter to the MAN301 via Firewire but it does not seem to work correctly.

**A4:** Make sure to have the Medea Firewire interface software updated to the latest version. Done via the Weiss Firewire I/O window from a MAC or Windows computer.

**Q5:** I experience occasional interrupts when playing music.

**A5:** Make sure to use Gigabit (1000M) devices for NAS, Router, Switch. Update the firmware of the NAS, Router, Switch if available.

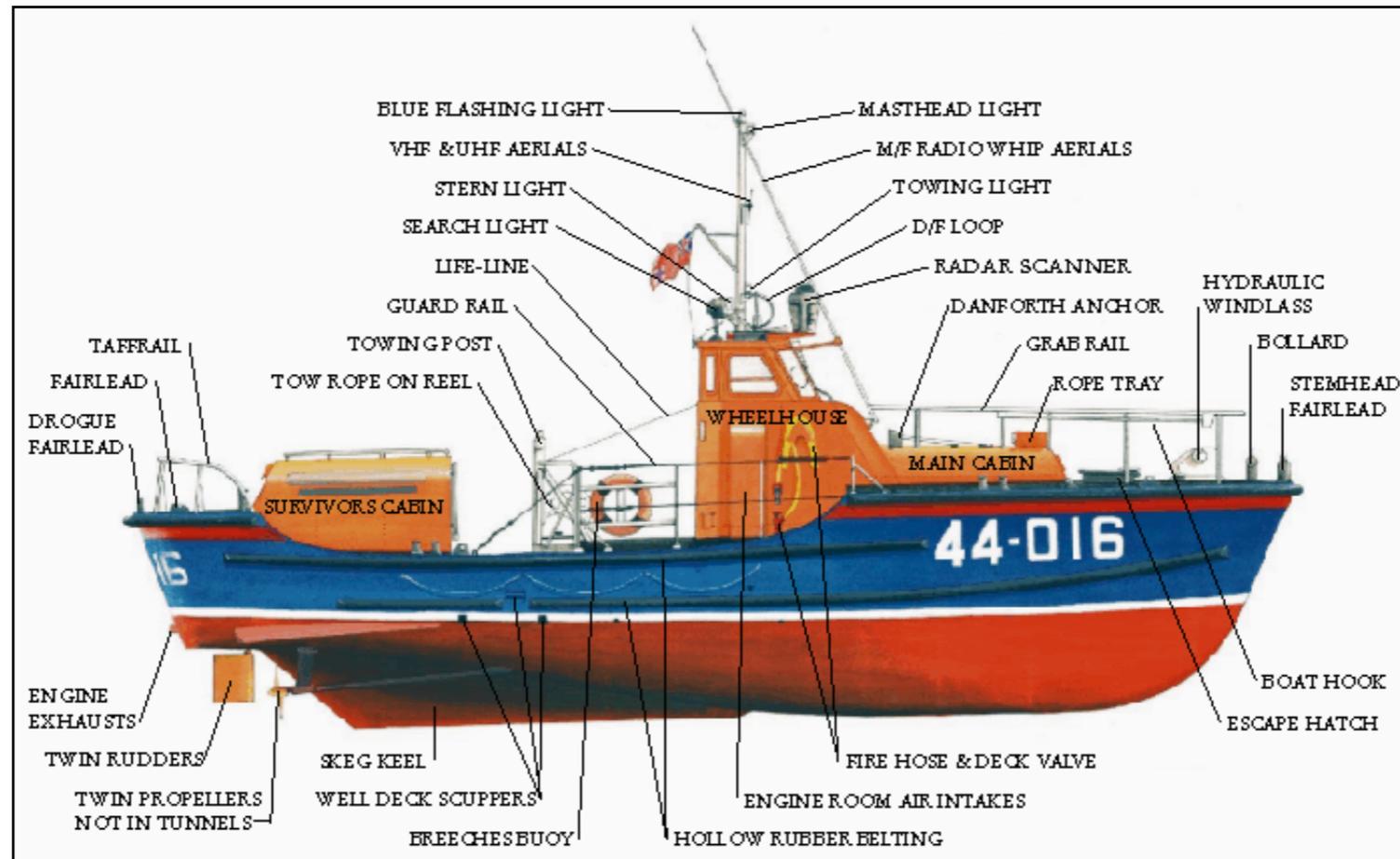
**Q6:** If I switch off the iPad when using the MAN301, what happens?

**A6:** If the iPad is put into standby mode (switch in the upper right of the iPad) then the connection to the MAN301 is maintained for a maximum of 10 minutes. After 10 minutes the connection to the MAN301 is closed. If switching off the iPad completely the connection to the MAN301 is closed immediately. In all cases the MAN301 continues to play.

After re-powering the iPad and entering the Weiss MAN app, the MAN301 to connect to has to be selected. After that the currently logged in user is automatically selected and its library view displayed.

## CHAPTER 7

# Technical Data, Articles



This chapter informs on technical data of the MAN301 and also gives in depth information on various topics

# MAN301 Technical Data

## Digital Inputs

(1) XLR connector, (1) RCA connector, (1) Toslink connector (optical), (2) Firewire 800 connectors. All inputs accept professional or consumer standard, i.e. accept AES/EBU or S/PDIF signals.

Supported sampling frequencies are 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4 kHz or 192 kHz on any of the inputs, except Toslink which handles 96 kHz maximum. The dual wire mode can be activated for sampling rates of 176.4 kHz or 192 kHz exclusively.

Maximum input wordlength is 24 bit.

## Digital Outputs

(1) XLR connector, (1) RCA connector, (2) Firewire connectors, (1) USB connector. Professional channel status data on the XLR and RCA outputs. The dual wire mode can be activated for sampling rates of 176.4 kHz or 192 kHz exclusively.

## Main Analog Outputs

(2) XLR connectors (hot on pin 2), DC coupled, short circuit proof output circuitry, output impedance 44  $\Omega$ . (2) RCA connectors, DC coupled, short circuit proof output circuitry, output impedance 22  $\Omega$ . The output level is selectable via the iPad; 4 settings are provided as shown below.

## XLR Output

7.5 Vrms, +19.7 dBu, with a 0 dBFS sinewave input

2.3 Vrms, +9.7 dBu, with a 0 dBFS sinewave input

0.75 Vrms, -0.3 dBu, with a 0 dBFS sinewave input

0.23 Vrms, -10.3 dBu, with a 0 dBFS sinewave input

These levels are achieved with all faders / gain trims set to maximum level.

## RCA Output

3.75 Vrms, +13.7dBu, with a 0 dBFS sinewave input

1.65 Vrms, +3.7dBu, with a 0 dBFS sinewave input

0.375 Vrms, -6.3dBu, with a 0 dBFS sinewave input

0.115 Vrms, -16.3dBu, with a 0 dBFS sinewave input

These levels are achieved with all faders / gain trims set to maximum level.

## Synchronization

Synchronized via the input signal, the internal oscillator or via a wordclock signal (TTL level/75  $\Omega$ ) on the BNC input. Sampling frequencies: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz. Wordclock output (TTL level/75  $\Omega$ ) on BNC for synchronization of other equipment.

## Power

Mains voltage: 100–240 V, the mains voltage is automatically switched.

Fuse rating: 4 A slow blow for all mains voltages

Power consumption: 50 W max.

Power consumption in standby: 0.5 W max.

## Measurements (internal DAC option installed)

The measurements below have been taken at the following conditions (unless noted otherwise): 1 kHz measurement frequency, maximum selectable output level, 192kHz sampling frequency (Fs), 22kHz measurement bandwidth, unweighted, 0 dBr equals the output level at 0 dBFS input.

### Frequency Response

Fs = 44.1 kHz, Filter A, 0Hz-20kHz: within +/- 0.25dB

Fs = 44.1 kHz, Filter B, 0Hz-20kHz: within +/- 1.3dB

Fs = 88.2 kHz, Filter A, 0Hz-20kHz: within +/- 0.25dB

Fs = 88.2 kHz, Filter A, 0Hz-40kHz: within +/- 0.8dB

Fs = 88.2 kHz, Filter B, 0Hz-20kHz: within +/- 0.25dB

Fs = 88.2 kHz, Filter B, 0Hz-40kHz: within +/- 1.5dB

Fs = 176.4 kHz, Filter A, 0Hz-20kHz: within +/- 0.25dB

Fs = 176.4 kHz, Filter A, 0Hz-40kHz: within +/- 0.8dB

Fs = 176.4 kHz, Filter A, 0Hz-80kHz: within +/- 2.5dB

Fs = 176.4 kHz, Filter B, 0Hz-20kHz: within +/- 0.25dB

Fs = 176.4 kHz, Filter B, 0Hz-40kHz: within +/- 0.8dB

Fs = 176.4 kHz, Filter B, 0Hz-80kHz: within +/- 3.5dB

## Total Harmonic Distortion plus Noise (THD+N)

–116 dBr (0.00016 %) at –3 dBFS input level

–125 dBr (0.000056 %) at –40 dBFS input level

–125 dBr (0.000056 %) at –70 dBFS input level

## Linearity

At 0 dBFS to –120 dBFS input level: less than  $\pm 0.4$  dB deviation from ideal

## Spurious components (including harmonics)

At 0 dBFS input level, maximum output level, 1 kHz, all components at less than –120 dB

At 0 dBFS input level, maximum output level, 4 kHz, all components at less than –115 dB

## Crosstalk

Better than 120 dB, 20 Hz–20 kHz

## Interchannel Phase Response

$\pm 0.05^\circ$  20 Hz–20 kHz

$\pm 0.30^\circ$  20 Hz–80 kHz

## Supported file formats for playback

- wav 44.1-192 kHz, 8-32 bit, float, double
- aiff 44.1-192 kHz, 8-32 bit, float, double
- m4a / alac 44.1-192 kHz, 16-32 bit
- m4a / aac 44.1-96 kHz
- flac 44.1-192 kHz, 16-24 bit (32 not tested / unknown)
- ogg / vorbis
- wma 44.1-48 kHz
- wv (wavepack) 44.1-192 kHz, 8-32 bit

# White paper on digital level control

## Digital Level Control – done the right way

In high-end HiFi circles a level control done in the digital domain is often viewed as being inferior to one operating in the analog domain. Let's look on how a digital level control works and why it can be an excellent solution if it is properly implemented.

A level control is a multiplication of the audio signal with a constant, the „gain factor“. The gain factor usually is in the range of zero (signal fully off) to one (signal untouched). A factor of 0.5 then means that the audio signal is attenuated to half of its amplitude.

What exactly happens when we multiply two numbers? If we e.g. multiply a 2 digit and a 3 digit number, the resulting number can be up to 5 digits long (the sum 2 plus 3). As an example: 30 times 500 equals 15000. 2 digits times 3 digits yields a 5 digit result.

In digital audio, the numbers are represented in the binary system, not the decimal system. A decimal number consists of digits 0 through 9, a binary number of digits 0 and 1. So a binary number may look like this: 1011 0011 0101 1101. This is a 16 digit or 16 bit binary number, the grouping into 4 bit chunks is for better readability. The audio samples on a CD are represented with such a bi-

nary number system with each sample value represented by 16 bits.

Now let's assume we have a 8 bit gain factor for a level control. If we apply that to a signal coming off a CD we multiply a 8 bit gain factor with a 16 bit sample value. The result is up to 24 bits long (the sum of the wordlengths of the two factors). An example:

0100 1001 x 1001 0110 0111 1011 = 0010 1010 1110 1001 0001 0011

The question now is what do we do with the 24 bit long result?

The digital to analog converter which converts the samples after the level control may only be capable to handle 16 bit wide samples. Thus what should we do with the excessive 8 bits? The simplest solution is to truncate the 24 sample to 16 bits, i.e. to cut off the 8 less significant bits.

The truncated 24 bit result above then would look like this:

0010 1010 1110 1001 i.e. the first 16 bits of the 24 bit result above.

The remaining bits (0001 0011) are discarded. If these bits are discarded a error is introduced. This error is called a quantization error, because the 24 bit result is re-quantized to 16 bits.

Unfortunately the quantization error is part of the audio signal – and if we take that part away from the signal, the signal undergoes some distortion, the so called quantization distortion.

The sound example at the link below shows how such a distortion sounds. In this music example a 16 bit signal is truncated to 8 bits. 8 bits in order to clearly show the effect. Notice how the noise (distortion) is modulated by the music signal.

<http://www.weiss-highend.ch/computerplayback/nodither.mp3>

This is how a badly implemented digital level control works....

Fortunately there is a better way to handle the re-quantizing. One solution would be to use a D/A converter with a higher word-length, e.g. a 24 bit converter, to accommodate for the 24 bit samples coming out of the level control. This of course would already help a lot, but there is another technique: dithering.

The idea about dithering is to de-correlate the quantization error from the audio signal. As we have seen in the example above, the quantization error depends on the audio signal (i.e. it is correlated with the audio signal). On the other hand, if dither noise is added to the 24 bit sample after the level control and before the re-quantization to 16 bits, the quantization error can be fully de-correlated from the signal. This means instead of distortion there is noise. The music is undistorted.

The audio example at the link below is again a 16 bit signal quantized to 8 bits, but with dither noise added. A much more pleasant experience. Notice how the noise stays untouched by the music, i.e. there is no noise modulation.

<http://www.weiss-highend.ch/computerplayback/flatdither.mp3>

Dithering does not stop here. More elaborate dithering schemes shape the noise such that it is mainly present at higher frequencies

where the human ear is less sensitive. This means that the audible noise is much lower. The link below is again the 16 bit source quantized to 8 bits with noise-shaped dithering. Probably hard to believe that this is only an 8 bit system! Note that the music is not distorted at all, despite the 8 bit resolution. Remember, a 16 bit system has 65,536 quantization steps while a 8 bit system has only 256 quantization steps – a huge difference. And still, the properly dithered 8 bit system sounds great.

<http://www.weiss-highend.ch/computerplayback/shapeddither.mp3>

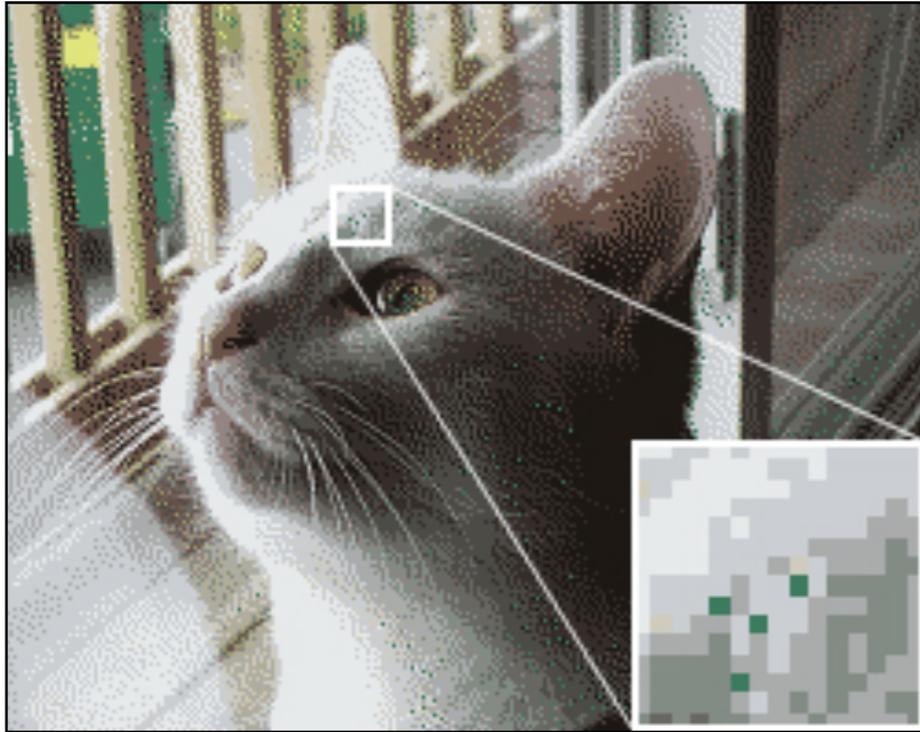
This is what a properly dithered level control is capable to do. You have heard the 8 bit version, imagine that with today's 24 bit converters – no question that a level control with a 24 bit wordlength easily rivals the best analog level controls. By the way, 24 bits means 16,777,216 quantization steps.

The last example below toggles the noise-shaping dither on and off to give a good contrast between dither / no dither versions.

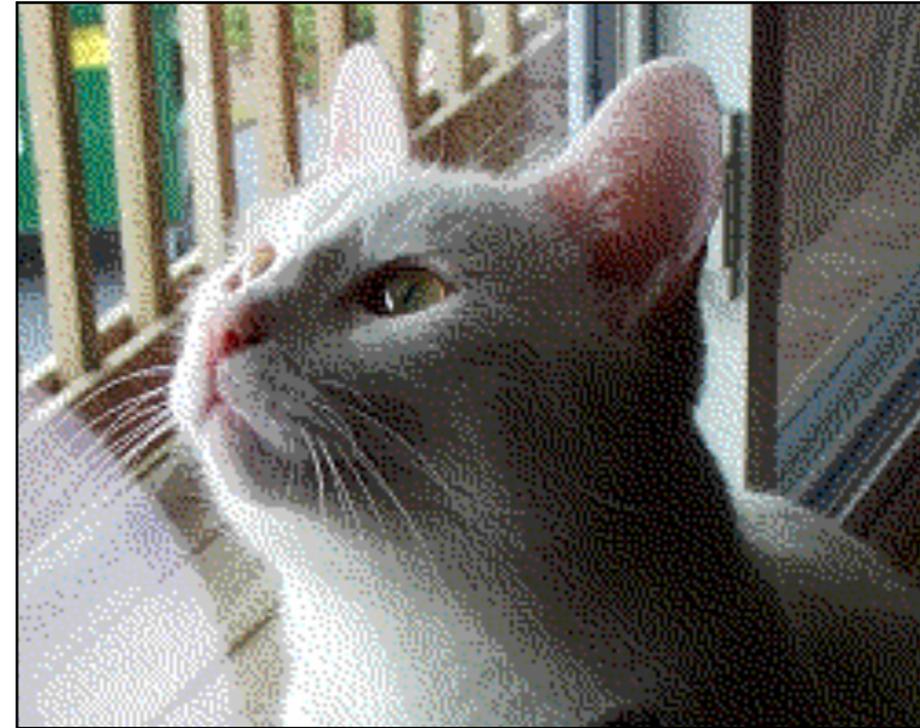
<http://www.weiss-highend.ch/computerplayback/togglingdither.mp3>

Dithering is used in many disciplines. The pictures below show dithering applied when quantizing picture data.

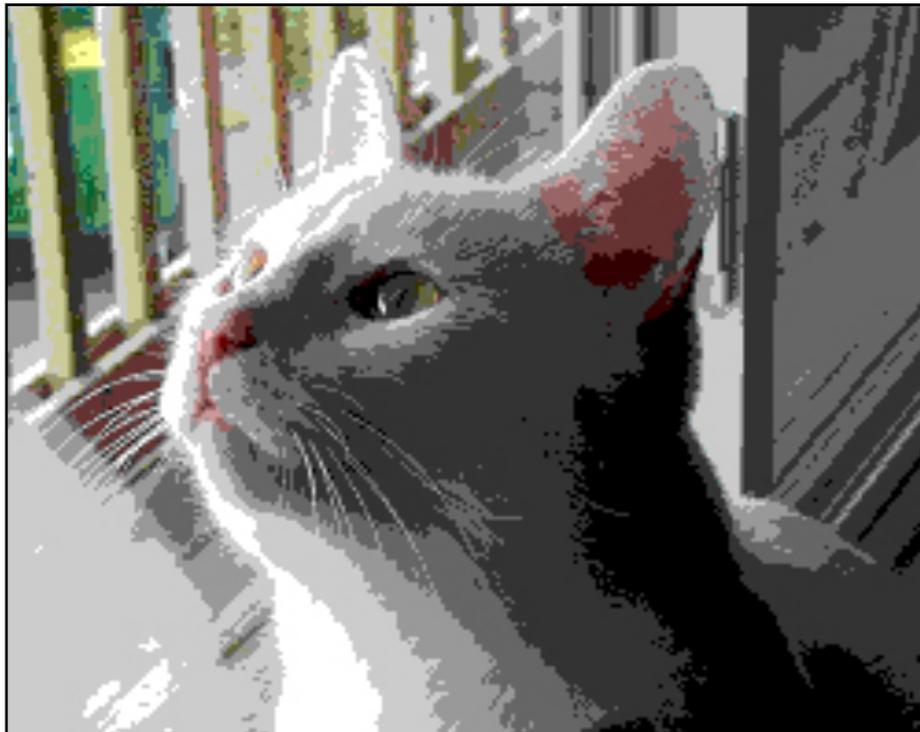
Original:



Quantized with dithering:



Quantized w/o dithering:



## CHAPTER 8

# Credits



The MAN301 has been brought to you by a great team:

**Rolf Anderegg:** base station software, audio controller software

**Uli Franke:** Weiss MAN iPad application, base station software

**Samuel Groner:** analogue hardware

**Jakob Schiesser:** mechanical design, PCB artwork, controller software

**Daniel Weiss:** digital hardware, manual

**Barbara Elsener:** manufacturing

**Claude Gugolz:** manufacturing, QC

**Miriam Joos:** manufacturing

**Marcel Vogt:** manufacturing, QC

**Andrea Weiss:** manufacturing, QC

**Joschka Weiss:** manufacturing, QC

**Yves Marx of Clever & Son:** iPad app concept and artwork

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## CHAPTER 9

# Software Revisions Information

```
ZSID  COM  10K | ZTRAN4  COM   4K
94 File(s), occupying 760K of 984K total capacity
130 directory entries and 992K bytes remain on A:
A>dir
A: CPMLDR  MAC : CPM3      SYS : DEFSB    LIB : LDRBIOS3  MAC : GENCPMNB  DAT
A: SYSGENNB SUB : L80      COM : M80     COM : WM        HLP : WM        COM
A: SPEED   COM : FORMAT  COM : RMAC    COM : ASSIGN   SYS : DEVICE    COM
A: DUMP    COM : ED       COM : ERASE   COM : GET       COM : INITDIR   COM
A: DDTZ    COM : HIST    UTL : PATCH  COM : DDT       COM : BIOS3     MAC
A: LOAD    COM : ASM      COM : LDR     COM : PUT       COM : C          SUB
A: RENAME  COM : SAVE     COM : LINK    COM : SET       COM : SETDEF    COM
A: SHOW    COM : TRACE   UTL : TYPE   COM : XREF     COM : BNKBIOS3  SPR
A: CC      SUB : BOOT     COM : MCCL   SUB : BIOS3    SPR : BDOS3     SPR
A: COPYSYS COM : DATE     COM : MCC    SUB : DIR      COM : GENCOM    COM
A: GENCPM  COM : HELP     COM : HELP   HLP : LIB     COM : HEXCOM    CPM
A: SID     COM : DO       COM : MC     SUB : PIP     COM : DEFSNB    LIB
A: R       COM : LIB80   COM : XFORMAT COM : RESBDOS3 SPR : BNKBDOS3  SPR
A: SPLRTL  REL : SCB     MAC : HDIR   COM : SPL     COM : ZTRAN4    COM
A: CREF80  COM : ZSID    COM : LU     COM : TIMER   COM : SYSCOPY   COM
A: SHOWSEC COM : RSETSIMH COM : PROFILE XXX : UNERA   MAC : UNERA     COM
A: DSKBOOT COM : SYSGENB SUB : DIF    COM : W       COM : BOOTGEN   COM
A: SUBMIT  COM : SPLERROR DAT : DPB    COM : GENCPMB DAT : DD        COM
A: DEFSB0  LIB : DEFSB0  LIB : SYSGENB0 SUB : FM      ASM
SYSTEM FILE(S) EXIST
A>
```

Information on the various revisions of the MAN301 software, the Weiss MAN app and this manual.  
Information on new features planned.

## MAN301 software revisions

MAN301 base station software: 1.0.0      compatible Weiss MAN app on iPad: V1.0.2373      applicable manual: 1.0.4

**Release Date:** May 1st 2012, 13:30

**Release Notes:** Official Initial Release

**Features:** Networking revision (one LAN Access Point), XMMS2 update (definitive support of WAVE / AIFF), Crash reports

**Known Issues:** Wifi station may temporarily bring down LAN AP as long as it's scanning. Dis-/Connecting/powering Firewire bus devices during active user sessions can result in corrupted/unrecoverable user session (recreation of user profile may consequently be necessary). It is highly recommended to powerdown MAN301 device before connecting powered devices to Firewire bus.

MAN301 base station software: 1.0.1      compatible Weiss MAN app on iPad: V1.0.2373      applicable manual: 1.0.4

**Release Date:** May 31st 2012, 14:25

**Release Notes:** MAN301 Basestation Operating System V1.0.1 (r2423), Urgent Initial Release Followup

**Features:** CD playback support, Offline CD rip support, Log-on service reliability, Critical upgrade fix, various bug fixes

**Known Issues:** Wifi station may temporarily bring down LAN AP as long as it's scanning. Dis-/Connecting/powering Firewire bus devices during active user sessions can result in corrupted/unrecoverable user session (recreation of user profile may consequently be necessary). It is highly recommended to powerdown MAN301 device before connecting powered devices to Firewire bus. Simultaneous CD playback and ripping results in jumpy CD drive behavior

**Notice:** Be aware that this upgrade will reconfigure part of your device's OS. V1.0.0: the app's Reboot button does not react after successful OS upgrade/switch. You are required to shut down the device manually, via the app's shutdown button (within log-in screen) or on device frontpanel (short press button). After power on, this version will be available. Device hot shut down (frontpanel long press button or power cut) is not recommended and may result in unrecoverable OS.

**MAN301 base station software: 1.0.2      compatible Weiss MAN app on iPad: V1.0.2373      applicable manual: 1.0.4**

**Release Date:** June 20th 2012, 19:05

**Release Notes:** MAN301 Basestation Operating System V1.0.2 (r2463). Urgent Initial Release Followup.

**Features:** Critical DHCP detection fix. Enhanced hostname resolving. Various bug fixes.

**Known Issues:** Wifi station may temporarily bring down LAN AP as long as it's scanning. Dis-/Connecting/powering Firewire bus devices during active user sessions can result in corrupted/unrecoverable user session (recreation of user profile may consequently be necessary). It is highly recommended to powerdown MAN301 device before connecting powered devices to Firewire bus. Simultaneous CD playback and ripping results in jumpy CD drive behavior.

**Notice:** Be aware that this upgrade will reconfigure part of your device's OS: V1.0.0: the app's Reboot button does not react after successful OS upgrade/switch. You are required to shut down the device manually, via the app's shutdown button (within log-in screen) or on device frontpanel (short press button). After power on, this version will be available. Device hot shut down (frontpanel long press button or power cut) is not recommended and may result in unrecoverable OS.

**MAN301 base station software: 1.0.3      compatible Weiss MAN app on iPad: V1.0.2373      applicable manual: 1.0.4**

**Release Date:** July 10th 2012, 14:46

**Release Notes:** MAN301 Basestation Operating System V1.0.3 (r2488). Urgent Initial Release Followup.

**Features:** Enhanced DHCP discovery. Major WAV format fix. Major storage media import fix. Various bug fixes.

**Known Issues:** Wifi station may temporarily bring down LAN AP as long as it's scanning. Due to a WAV format fix, this upgrade may require reimporting users' media libraries. Dis-/Connecting/powering Firewire bus devices during active user sessions can result in corrupted/unrecoverable user session (recreation of user profile may consequently be necessary). It is highly recommended to powerdown MAN301 device before connecting powered devices to Firewire bus. Simultaneous CD playback and ripping results in jumpy CD drive behavior.

**Notice:** Be aware that this upgrade will reconfigure part of your device's OS. V1.0.0: the app's Reboot button does not react after successful OS upgrade/switch. You are required to shut down the device manually, via the app's shutdown button (within log-in screen) or on device frontpanel (short press button). After power on, this version will be available. Device hot shut down (frontpanel long press button or power cut) is not recommended and may result in unrecoverable OS.

**MAN301 base station software: 1.0.4**      **compatible Weiss MAN app on iPad: V1.1.2947**      **applicable manual: 1.0.5**

**Release Date:** September 13th 2012, 23:52

**Release Notes:** MAN301 Basestation Operating System V1.0.4 (r2915). Urgent Release Followup.

**Features:** Media library sanity check & recovery. Permanent DAS mount support. HFS+ mount support. iPad/iPhone/iPod mount support. CDDDB info in CD playlist. System status messages. Various major bug fixes.

**Known Issues:** Wifi station may temporarily bring down LAN AP as long as it's scanning. Dis-/Connecting/powering Firewire bus devices during active user sessions can result in corrupted/unrecoverable user session (recreation of user profile may consequently be necessary). It is highly recommended to powerdown MAN301 device before connecting powered devices to Firewire bus. Simultaneous CD playback and ripping results in jumpy CD drive behavior.

**Notice:** Be aware that this upgrade will reconfigure part of your device's OS. V1.0.0: the app's Reboot button does not react after successful OS upgrade/switch. You are required to shut down the device manually, via the app's shutdown button (within log-in screen) or on device frontpanel (short press button). After power on, this version will be available. Device hot shut down (frontpanel long press button or power cut) is not recommended and may result in unrecoverable OS.

**MAN301 base station software: 1.0.5**      **compatible Weiss MAN app on iPad: V1.1.2947, 1.1.3092**      **applicable manual: 1.0.5**

**Release Date:** October 25th 2012, 18:07

**Release Notes:** MAN301 Basestation Operating System V1.0.5 (r3110). Release Followup. Requires iPad App Weiss MAN  $\geq$  V1.1.0

**Features:** Ext. USB DAC mixer. Media import speedup measures (skip hidden & other irrelevant files). Various fixes & stability measures

**Known Issues:** Wifi station may temporarily bring down LAN AP as long as it's scanning. Dis-/Connecting/powering Firewire bus devices during active user sessions can result in corrupted/unrecoverable user session (recreation of user profile may consequently be necessary). It is highly recommended to powerdown MAN301 device before connecting powered devices to Firewire bus. Simultaneous CD playback and ripping results in jumpy CD drive behavior.

**Notice:** Be aware that this upgrade will reconfigure part of your device's OS. V1.0.0: the app's Reboot button does not react after successful OS upgrade/switch. You are required to shut down the device manually, via the app's shutdown button (within log-in screen) or on device frontpanel (short press button). After power on, this version will be available. Device hot shut down (frontpanel long press button or power cut) is not recommended and may result in unrecoverable OS.

**MAN301 base station software: 1.0.6**      **requires Weiss MAN app on iPad > V1.1.0**      **applicable manual: 1.0.6**

**Release Date:** November 16th 2012, 16:50

**Release Notes:** MAN301 Basestation Operating System V1.0.6 (r3169). Release Followup. Requires iPad App Weiss MAN  $\geq$  V1.1.0

**Features:** Various fixes & stability measures.

**Known Issues:** Wifi station may temporarily bring down LAN AP as long as it's scanning. Dis-/Connecting/powering Firewire bus devices during active user sessions can result in corrupted/unrecoverable user session (recreation of user profile may consequently be necessary). It is highly recommended to powerdown MAN301 device before connecting powered devices to Firewire bus. Simultaneous CD playback and ripping results in jumpy CD drive behavior.

**Notice:** Be aware that this upgrade will reconfigure part of your device's OS. V1.0.0: the app's Reboot button does not react after successful OS upgrade/switch. You are required to shut down the device manually, via the app's shutdown button (within log-in screen) or on device frontpanel (short press button). After power on, this version will be available. Device hot shut down (frontpanel long press button or power cut) is not recommended and may result in unrecoverable OS.

**MAN301 base station software: 1.0.7      requires Weiss MAN app on iPad > V1.1.0      applicable manual: 1.0.7**

**Release Date:** November 26th 2012, 18:56

**Release Notes:** MAN301 Basestation Operating System V1.0.7 (r3203). Release Followup. Requires iPad App Weiss MAN  $\geq$  V1.1.0

**Features:** WAV / AIFF import fix, enhanced WiFi access point/uplink reliability, various fixes & stability measures.

**Known Issues:** Wifi station may temporarily bring down LAN AP as long as it's scanning. Dis-/Connecting/powering Firewire bus devices during active user sessions can result in corrupted/unrecoverable user session (recreation of user profile may consequently be necessary). It is highly recommended to powerdown MAN301 device before connecting powered devices to Firewire bus. Simultaneous CD playback and ripping results in jumpy CD drive behavior.

**Notice:** Be aware that this upgrade will reconfigure part of your device's OS. V1.0.0: the app's Reboot button does not react after successful OS upgrade/switch. You are required to shut down the device manually, via the app's shutdown button (within log-in screen) or on device frontpanel (short press button). After power on, this version will be available. Device hot shut down (frontpanel long press button or power cut) is not recommended and may result in unrecoverable OS.

**MAN301 base station software: 1.0.8: not released**

**MAN301 base station software: 1.0.9      requires Weiss MAN app on iPad > V1.1.0, recommended > V1.4.0      applicable manual: 1.0.9**

**Release Date:** January 8th 2013, 18:08

**Release Notes:** MAN301 Basestation Operating System V1.0.9 (r3394). Release Followup. Requires iPad App Weiss MAN  $\geq$  V1.4.0

**Features:** Webmedia support: radio streams & playlists (m3u/pls/asx), podcasts (RSS feeds), various fixes & stability measures

**Known Issues:** Wifi station may temporarily bring down LAN AP as long as it's scanning. Dis-/Connecting/powering Firewire bus devices during active user sessions can result in corrupted/unrecoverable user session (recreation of user profile may consequently be neces-

sary). It is highly recommended to powerdown MAN301 device before connecting powered devices to Firewire bus. Simultaneous CD playback and ripping results in jumpy CD drive behavior.

**Notice:** Be aware that this upgrade will reconfigure part of your device's OS. V1.0.0: the app's Reboot button does not react after successful OS upgrade/switch. You are required to shut down the device manually, via the app's shutdown button (within log-in screen) or on device frontpanel (short press button). After power on, this version will be available. Device hot shut down (frontpanel long press button or power cut) is not recommended and may result in unrecoverable OS.

## **Features of the MAN301 in planning / implementation stage**

- Incorporation of the Gracernote database interface.
- Various signal processing features.

# AAC

Advanced Audio Coding, the lossy compression scheme used by Apple. Kind of similar to MP3. Not recommended for highend audio.

See <http://en.wikipedia.org/wiki/Aac>

---

## Verwandte Glossarbegriffe

Audio format, MP3

---

**Index**

Begriff suchen

**Chapter 4 - CD Ripping**

## Access point

The MAN301 can act as a WiFi access point, i.e. the iPad can log into the MAN301's WiFi directly. The default SSID of the MAN301 access point is MAN301-xxxx\_LAN, where xxxx is the serial number of the MAN301 minus 1000. The default password of the MAN301 access point is WeissMAN301. Note, upper / lower case is important.

---

### Verwandte Glossarbegriffe

SSID, Wireless Uplink

---

**Index**

Begriff suchen

# Administrator

The person who manages the MAN301 accounts, NAS units etc. The default administrator password is wh10admin.

---

## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

---

## Index

### Chapter 1 - System setup, Configuration 1

Chapter 1 - System setup, Configuration 2

Chapter 1 - System setup, Configuration 4

Chapter 1 - System setup, Configuration 5

# AIFF

Audio Interchange File Format. An uncompressed file format similar to WAV, but not compatible.

See [http://en.wikipedia.org/wiki/Audio\\_Interchange\\_File\\_Format](http://en.wikipedia.org/wiki/Audio_Interchange_File_Format)

---

## Verwandte Glossarbegriffe

Audio format, WAV

---

**Index**

Begriff suchen

Chapter 4 - CD Ripping

# ALAC

Apple Lossless Audio Coding. The Apple variant of FLAC.

See: <http://en.wikipedia.org/wiki/Alac>

---

## Verwandte Glossarbegriffe

Audio format, FLAC

---

**Index**

Begriff suchen

Chapter 4 - CD Ripping

# Artwork

The CD cover artwork.

---

## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

---

## Index

Begriff suchen

**Chapter 1 - System features and requirements**

Chapter 1 - System architectures

# Audio format

The musical information is stored in files on a storage medium. There are several different standardized ways to store the information in those files. General categories are uncompressed / losslessly compressed / lossy compressed. These terms refer to whether the musical information is stored completely unaltered (uncompressed), or compressed in such a way that the very same initial information can be extracted from the file (losslessly compressed), or compressed in such a way that the utmost of storage capacity is saved at the price of altering the musical information (lossy compressed). Compression is used to save storage space or save on necessary bandwidth when transferring the musical data e.g. via the Internet.

Some common audio file format names:

Uncompressed: WAV, AIFF

Losslessly compressed: FLAC, ALAC (about 50% less storage space required compared to an uncompressed format)

Lossy compressed: MP3, AAC (about 90% less storage space required compared to an uncompressed format)

---

## Verwandte Glossarbegriffe

AAC, AIFF, ALAC, FLAC, MP3, MPC, OGG, WAV

---

**Index**

Begriff suchen

**Chapter 1 - System features and requirements**

# Base station

The MAN301 hardware unit.

---

## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

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**Index**

Begriff suchen

# CD ripping

Designates the process of copying the content of a CD to the storage medium by generating one file per track.

---

## Verwandte Glossarbegriffe

Import destination

---

**Index**

Begriff suchen

# Compilation

A CD which can not be assigned to a single artist because there are several artists tracks present on the CD. These can be e.g. film music or label sampler CDs.

---

## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

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**Index**

Begriff suchen

**Chapter 2 - Library**

## DHCP server

A software part in a unit connected to a network which assigns IP addresses to the various units connected to the network. There is only one unit on the network which acts as the DHCP server. In a MAN301 network the role of the DHCP server is taken by a router unit or if there is no router present, the MAN301 can act as a DHCP server.

---

### Verwandte Glossarbegriffe

Ethernet, IP address, Router

---

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Begriff suchen

## Dual Wire

In earlier days of higher sampling rates (88.2 kHz and upwards) there were no chips available for transmitting or receiving AES/EBU or S/PDIF audio data at those higher rates. The intermediate solution uses two chips (i.e connectors / cables) to transfer a stereo 96kHz signal, one channel per link. This format has been standardized by the AES (Audio Engineering Society). In short it is called dual wire format. Older D/A converters may still employ that format for high sample rates. The MAN301 can be set to dual wire mode for sampling rates of 176.4 or 192 kHz.

---

### Verwandte Glossarbegriffe

Single Wire

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**Index**

Begriff suchen

**Chapter 1 - Pre-amplifier Mode**

# Ethernet

This denotes a wired network connection.

---

## Verwandte Glossarbegriffe

DHCP server, Router

---

**Index**

Begriff suchen

Chapter 1 - System architectures

# Fader

Kind of a potentiometer but with a linear geometry. In the MAN301 used to control the audio volume.

---

## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

---

**Index**

Begriff suchen

**Chapter 1 - Pre-amplifier Mode**

# FLAC

Free Lossless Audio Codec. Similar to ALAC, but not compatible with ALAC.

See <http://en.wikipedia.org/wiki/Flac>

---

## Verwandte Glossarbegriffe

ALAC, Audio format

---

**Index**

Begriff suchen

Chapter 4 - CD Ripping

# Frontend

The iPad with the Weiss MAN app installed. The iPad may be one of the first, second or third generation. The iOS version on the iPad needs to be 5.0 at least.

---

## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

---

## Index

### Chapter 1 - System setup, Configuration 1

Chapter 1 - System setup, Configuration 2

Chapter 1 - System setup, Configuration 4

Chapter 1 - System setup, Configuration 5

# Genre

A musical style.

---

## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

---

**Index**

Begriff suchen

**Chapter 2 - Library**

# iBooks

An iPad application available for free in the Apple app store. iBooks allows to read various file formats, one of them being the iBooks format for electronic books. The MAN301 manual is available in ibooks format (preferred) or PDF format.

---

## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

---

**Index**

Begriff suchen

**Chapter 1 - System features and requirements**

# Import destination

The folder where newly ripped CD files are stored.

---

## Verwandte Glossarbegriffe

CD ripping

---

**Index**

Begriff suchen

# IP address

Each device connected to a network (like the MAN301, the NAS, the router etc.) has a unique device address such that data on the network can be routed to the proper destination. This address is called the IP address and is assigned to the devices on the network by the DHCP server. An IP address may look like: 192.168.0.1. The highest possible address is 255.255.255.255, the lowest 0.0.0.0. Thus the maximum number of devices on a network theoretically is 255 times 255 times 255 times 255. The internet addresses are also made up of IP addresses.

---

## Verwandte Glossarbegriffe

DHCP server

---

**Index**

Begriff suchen

**Chapter 1 - User Accounts**

# MAN301 Base Station

The actual MAN301 hardware device.

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## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

---

**Index**

Begriff suchen

**Chapter 1 - System features and requirements**

# Meta data

Also called tags, i.e. the data describing the content of a CD, like artist name, album name, track names, cover artwork etc.

---

## Verwandte Glossarbegriffe

Tags

---

**Index**

Begriff suchen

Chapter 1 - System architectures

# MP3

MPEG-2 Layer III lossy compression format. Not recommended for high-end audio.

See <http://en.wikipedia.org/wiki/Mp3>

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## Verwandte Glossarbegriffe

AAC, Audio format

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Begriff suchen

**Chapter 4 - CD Ripping**

# MPC

Musepack lossy audio compression format. Not recommended for high-end audio.

See <http://en.wikipedia.org/wiki/Musepack>

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## Verwandte Glossarbegriffe

Audio format

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**Chapter 4 - CD Ripping**

# Music library

The entire collection of music tracks stored on a single or multiple storage devices.

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## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

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Begriff suchen

**Chapter 1 - System features and requirements**

# NAS

„Network Attached Storage“, a storage device, typically consisting of one to several hard-disks or SSDs, which connects to a computer network via one or more Ethernet interfaces.

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## Verwandte Glossarbegriffe

Ethernet, SSD

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# OGG

A multimedia container format, can contain lossy or lossless audio.

See <http://en.wikipedia.org/wiki/Ogg>

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## Verwandte Glossarbegriffe

Audio format

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Begriff suchen

Chapter 4 - CD Ripping

# Playlist

A user generated list of music tracks which are subsequently being played by the MAN301 system.

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## Verwandte Glossarbegriffe

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**Chapter 1 - System features and requirements**

# Queue playlist

The default playlist in the MAN301. The Queue is used e.g. for immediate playback from the library.

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## Verwandte Glossarbegriffe

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**Chapter 2 - Library**

# Router

A hardware device with multiple Ethernet sockets to connect various network devices (MAN301, NAS) to. Kind of a star point to build a network. Often the router also connects to the Internet, offers wireless access (WiFi router) and acts as a DHCP server.

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## Verwandte Glossarbegriffe

DHCP server, Ethernet

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**Chapter 1 - System architectures**

## Single Wire

In earlier days of higher sampling rates (88.2 kHz and upwards) there were no chips available for transmitting or receiving AES/EBU or S/PDIF audio data at those higher rates. The intermediate solution uses two chips (i.e connectors / cables) to transfer a stereo 96kHz signal, one channel per link. This format has been standardized by the AES (Audio Engineering Society). In short it is called dual wire format. Older D/A converters may still employ that format for high sample rates. The MAN301 can be set to dual wire mode for sampling rates of 176.4 or 192 kHz.

All other „standard“ AES/EBU or S/PDIF connections which use a single link for a stereo signal are called a „single wire“ link.

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### Verwandte Glossarbegriffe

Dual Wire

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Begriff suchen

**Chapter 1 - Pre-amplifier Mode**

# SSD

„Solid State Disk“, a storage device consisting of semiconductor storage chips, with an interface compatible with standard disk based magnetic storage devices (hard disk). The SSDs do not yet achieve the capacity of hard disks. The price per bit of storage capacity is higher than that of a hard disk by a fair amount.

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## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

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Begriff suchen

# SSID

Service Set Identifier. The name of a WiFi access point. The default SSID of the MAN301 access point is MAN301-xxxx\_LAN, where xxxx is the serial number of the MAN301 minus 1000. The default password of the MAN301 access point is WeissMAN301. Note, upper / lower case is important.

See <http://en.wikipedia.org/wiki/SSID>

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## Verwandte Glossarbegriffe

Access point

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Chapter 1 - System setup, Configuration 1

# Swipe

The movement of a finger accross the iPad screen for scrolling etc.

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## Verwandte Glossarbegriffe

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# System configurations

Various system setups the MAN301 supports. See Chapter 1 section 2 of this manual.

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## Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

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Begriff suchen

**Chapter 1 - System architectures**

# Tags

Also called meta data, i.e. the data describing the content of a CD, like artist name, album name, track names, cover artwork etc.

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## Verwandte Glossarbegriffe

Meta data

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Begriff suchen

# Users

The MAN301 allows for several user accounts, each having its own set of storage devices, library, playlists etc.

User accounts can be used to distinguish between actual users or different storage places or different music styles etc.

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## Verwandte Glossarbegriffe

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**Chapter 1 - System features and requirements**

# WAV

Waveform Audio File Format, an uncompressed file format, similar to the AIFF format but not compatible.

See <http://en.wikipedia.org/wiki/Wav>

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## Verwandte Glossarbegriffe

AIFF, Audio format

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Begriff suchen

**Chapter 4 - CD Ripping**

# WiFi

This denotes a wireless network connection.

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## Verwandte Glossarbegriffe

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**Chapter 1 - System architectures**

# Wireless Uplink

The MAN301 is capable to connect to a WiFi access point in order to e.g. access the Internet.

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## Verwandte Glossarbegriffe

Access point

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Begriff suchen

## Word-clock

An electrical square wave signal which has the frequency of the actual sampling rate. Used to synchronize external equipment to the MAN301 or to synchronize the MAN301 from an external word-clock source.

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### Verwandte Glossarbegriffe

Zugehörige Begriffe hierher ziehen

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Chapter 3 - Audio I / O, Sync I / O