



## User Guide

Autoplus Radio Automation Software.

Version 3.7.9p

© Westcountry Broadcast 2010  
[www.westcountrybs.co.uk](http://www.westcountrybs.co.uk)

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## Welcome to Autoplus Radio Automation Software

This document is intended to explain and guide you through the operation of Autoplus radio automation software. Throughout the text it is assumed that the reader has a degree of knowledge of computers, specifically is familiar with operating programs under the Microsoft® Windows operating systems. It is also assumed that the reader is familiar with radio studio techniques and terminology as would be expected of the likely user of this software. Anyone working as a BA, presenter or producer should have no problems.

If you have downloaded the software or received a demo disc it will enable you to enjoy a trial of the software. If you decide to purchase, then email [sales@westcountrybs.co.uk](mailto:sales@westcountrybs.co.uk) and we will advise on payment options. We will then mail you USB security keys (dongles) for each machine you have purchased licences for. Therefore if you wish to move the software to a new machine or have to reinstall the software or operating system, you simply plug in the dongle to a USB port and the software is licenced. If you already have a licensed copy of Autoplus then any new disc will install in the same way but automatically pick up your dongle/licence information.

Autoplus is distributed exclusively by Westcountry Broadcast directly or through its resellers. Westcountry Broadcast can provide a full installation and training service for the product as well as other broadcast services. Please view our website. <http://www.westcountrybs.co.uk>. The manufacturer's website is <http://www.auto-plus.co.uk>

Before delving into the software we shall look at some pre-requisites.

### **Minimum recommended PC specification:-**

Intel® Pentium® 4 Processor 2.4GHz with 1GB of memory, Creative Labs™ Soundblaster® card or better, 17" or larger TFT monitor running a screen resolution of 1280 x 1024. Obviously the size of hard disc drive will depend on how much audio you choose to store, but a 7200rpm drive should be used. We only support operation under Windows XP Professional SP3, Vista, Windows 7 Professional/Ultimate or Server 2003 32 bit.

Autoplus radio automation software is not supported under Microsoft® Windows NT, 95/8, 98SE, ME (Millennium Edition), 2000 or XP Home. We recommend against using Autoplus 3.7 under Windows Vista Home/Home Premium/Basic etc. Whilst we know some users run the software under 64 bit versions of Windows we do not recommend this. There is no version of Autoplus available for other OSs such as Apple Mac® or Linux however we know that it runs perfectly happily under Bootcamp on Macs.

The ideal specification for this release would be something along the lines of Intel® Pentium® Core 2 Duo (800MHz + FSB), 2GB of DDR2 memory, 1TB SATA hard disc drive (SCSI if you want!) or greater ideally with audio files held on a dedicated drive with RAID mirroring. We advise a dual output graphics card to allow the various windows to be displayed simultaneously on two monitors. We advise 17" TFT (or larger) monitors running a screen resolution of 1280 x 1024 pixels. From a sound card perspective, a hardware multi-channel balanced in/out card is best. We recommend Marian sound cards which have been tested for use with the software as well as representing good performance and value for money. Many other sound cards work quite happily however and there is no demand to use Marian cards. For 4 faders from Autoplus 3.7, try the Trace 8 from Marian.

All Marian sound cards for use with Autoplus are available from Westcountry Broadcast Ltd.

## What's new in version P?

- 1, New tab in settings screen to allow creation and modification of categories and sub categories in library. There is no longer a need to modify setup.ini manually.
- 2, Improved flexibility in Voice Tracker performance. There are new settings in the setup.ini for this.  
[Voice Tracker]  
Target Level=100  
Quiet Level=10  
AGC Rate=1  
AGC Input Amp PC (no amplification is 100, double the input volume is 200)=150  
**How to use these settings:**  
**Target Level**  
The target level expressed in percentage. 100 would be full volume.  
**Quiet Level**  
The quiet threshold expressed in percentage.  
**AGC Rate**  
The amplification adjustment rate, expressed in percentage.  
**AGC Input Amp PC**  
The input gain before the AGC. For quiet inputs (i.e. microphone or line inputs) which need boosting this can be increased to a high value (up to approx 1000%). Anything higher than 200% should be looked at because it's likely to be a volume issue into the sound card.
- 3, Fixed bug: Cart kill dates now prevent cart being used at all. Note however that care should be taken when using carts manually from the library to populate an Active Log: kill dates do not get actioned in this scenario as the log could be being created for any date! If a cart is loaded from a log into the queue and is found to have expired the warning dialogue will be displayed for 2 seconds before it carries on.
- 4, Fixed bug: S (sequence) buttons on cart player are now always displayed.
- 5, Fixed bug: Command cut editor screen caused settings screen to disappear behind main screen.
- 6, In the cart players tab of the settings screen, an additional input field is present. This allows selection of one of multiple devices present on a chosen sound card device. In many cases this will only have one option anyway!
- 7, The Users tab in settings has been made much simpler and cleaner. It is now the same style as APTV.
- 8, Several improvements made to the Waveform display in Active Log
- 9, You can now Save As in Active Log to allow multiple copies of the same log to be created.
- 10, The "Recently played" display functionality which existed in Autoplus 3.6 has been restored to 3.7 as an option as many users liked it and wanted it back! This has to be enabled in the ini file using these two lines:  
Show Cart Player Played Icon=1  
Show Cart Player Played Icon - Minutes To Show=60  
When restarting Autoplus after changing these settings it will create an additional small column in the library at the right. This may well be out of sight and so you need to use the scroll bar to find it. You can then drag it by the header back to the left or wherever you wish to display it. The icon is an exclamation mark.
- 11, New Command Cut commands for new style Autoplus Ad Player dual. (SP1 Play, SP2 play)
- 12, Support for new Ad Player break countdown timer added
- 13, New version of Import Engine with added functionality for Autoplus Site Server

## Basic Functionality

Autoplus is a sophisticated audio management system. Its primary function is to play audio files that are stored on the local computer or network server. This audio is played via a computer sound card or cards that would typically be connected to a broadcast mixing desk.

When a computer is employed to playback audio at a radio station it's assumed that there will a large number of songs, jingles and commercials recorded onto the hard drive.

Many radio stations have a library of thousands of songs, which means simple organisation and searching of audio is paramount.

We consider it important that the screen layout is *non-cluttered* and *simple to understand*, ensuring that even people with little experience of computers can familiarise themselves with how it works. To aid this we have adopted familiar radio station terminology throughout the software. Audio files are referred to as 'Audio Carts' or 'Audio Cuts' and audio players as 'Cart Machines'. (A tape cartridge containing audio, similar to the 8-track cassettes and usually referred to as NAB carts. Carts have been used in nearly every radio station at some point).

The developers aim to have achieved the following with Autoplus:

- Simple non-cluttered interface
- Easy and familiar operation (by using radio station terminology)
- Selection and playback of desired audio with minimum 'mouse clicks'
- Simple searching and organisation of audio

## Installation and setup

To start the installation, double click the SETUP icon on the Autoplus disc or your PC. We recommend that you download the latest setup routine from our downloads website [www.westcountrybs.co.uk/downloads](http://www.westcountrybs.co.uk/downloads) The setup will run through asking the normal questions about destination directories etc. By default Autoplus will install in C:\Program Files\Autoplus Software UK\Autoplus 3.7. **This has been changed from earlier installers and so if you are upgrading an existing installation you should ensure that your original path is entered during the installation.** Ensure that if you do change the directory, that it remains on the same drive letter as the system disc (i.e. Windows directory). You can pretty much just keep pressing the NEXT buttons throughout the setup routine otherwise.

The files will then be copied to your system. This is a multi-part operation. Initially Autoplus files, then various Microsoft® components. You will also see a message confirming that the dongle drivers have been installed. If you are prompted about any files that are "Read only" on your system, simply click the RETRY button. If you get the same message and you are installing on a system that has previously had Autoplus installed on it then ensure that Autoplus is closed and that the Import Engine service is stopped first (see later in this manual for details on how to do this).

If Autoplus is not found on the PC (i.e. the install is new rather than an upgrade), a message will confirm this and during the install you will be asked if you wish to search for existing installs. This is useful if you have a network install. Otherwise simply say NO and a new standalone installation will take place. You will be advised to reboot your PC. Always reboot the PC before running the application for the first time. Before you reboot, plug in the Autoplus dongle (if you have purchased the software) and it will be detected and a driver wizard will run. Select the option to install the drivers automatically and answer NO to the option to search for drivers on the internet.



Fig.1

When you've done this, run Autoplus and enjoy! The first time you run a new version of Autoplus you will receive a Windows Firewall message asking if you wish to unblock a port. This is perfectly normal and you should choose the Unblock option. If you encounter problems starting the program the first time immediately after install, reboot your PC and re-launch the program. Always start the program for the first time from the Microsoft® Windows start menu, not from your desktop shortcut.

## Getting started.

We should have a look at the main screen next to see the layout and location of key components.

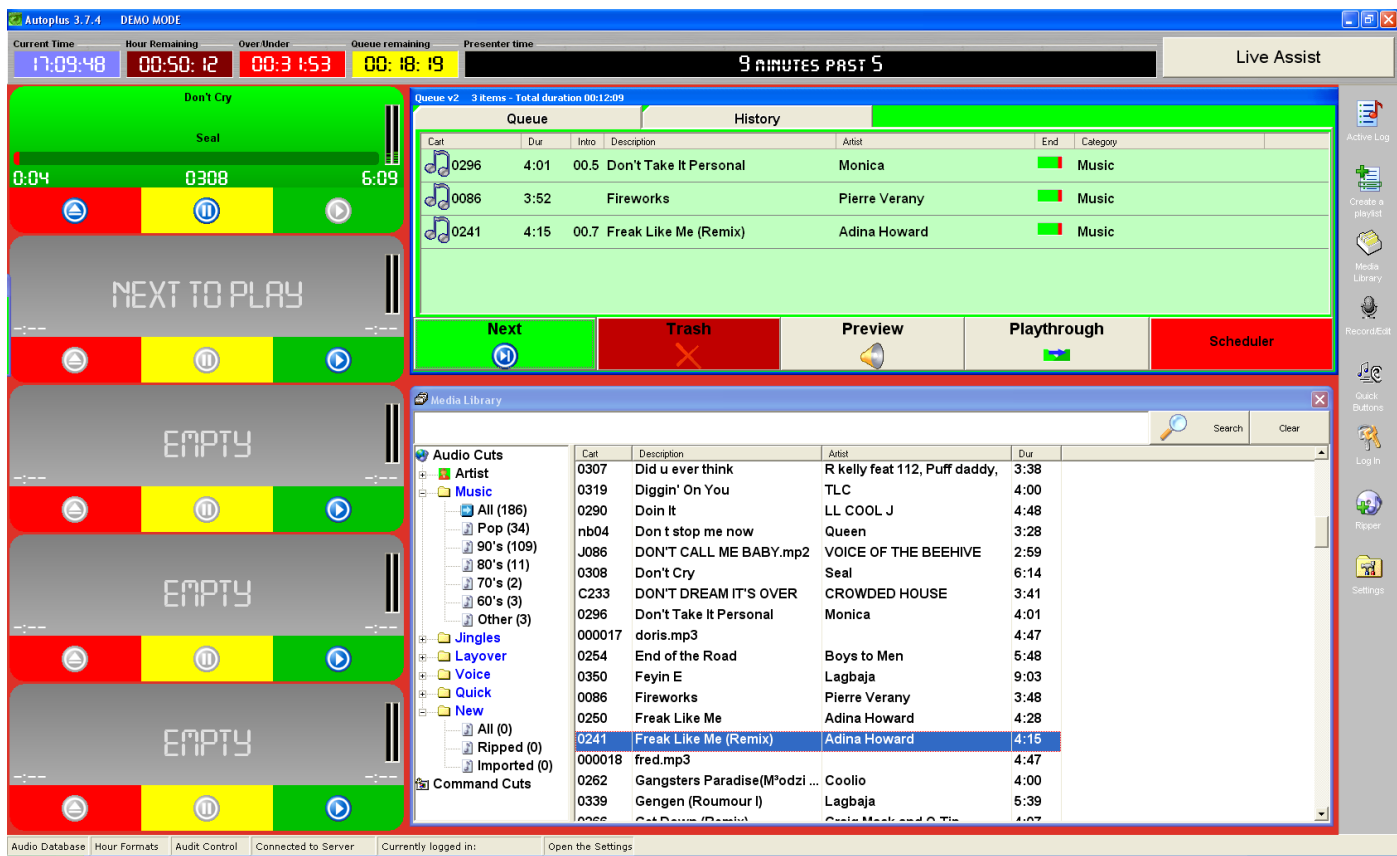


Fig.2

## SCREEN LAYOUT

The main screen by default is laid out as in Fig.2. However the two main panes, the queue and cut library may be moved around and resized to any layout you desire and these settings will be remembered each time you restart Autoplus (per user login). You can utilise a dual head graphics card with two monitors that allows you to permanently display windows on different monitors such as the Quick Buttons and Record Edit Controller on one screen with the main screen on another. The layouts are designed to work well with touch screen monitors. If you would like help with purchasing hardware, please contact [sales@westcountrybs.co.uk](mailto:sales@westcountrybs.co.uk).

In a strip across the top of the screen a real time clock is present, (see Fig.3) also a presenter friendly time displayed as text. This will be as accurate as your Windows® clock. We suggest some form of network time synchronisation software such as About Time or hardware device linked to a server SNMP service that keeps all PCs on the network synchronised with an internet reference such as the Rugby clock or NASA. Also present is a timer detailing the current playback sequence time remaining and back timing information consisting of time remaining to the top of hour (this timer goes red when there are ten minutes or less to the top of hour (toh)) and an under/over timer advising (based on the contents of the queue and including any audio currently playing) whether you have more audio than time (counter is green-you are over) or less audio than time (counter is red- you are under). Clearly if you are over, you can fade early or delete some carts from the queue. If you are under you can add carts to fill but need also to allow for links etc.

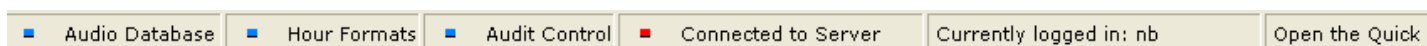


Fig 3: Timer bar

Down the left hand side of the screen are the cart player stacks discussed below. Across the bottom of the screen is a thin strip of status indicators (see the foot of this page). Blue indicates OK and red indicates not working/connected. In the example below the workstation is not connected to the Autoplus server (indicated by red "LED"). To the right of the status indicators the bar displays the user currently logged on and finally the detail of the last button pressed in the menu bar (in this case the Quick Buttons button).

To the extreme right of the main screen is the main toolbar. This gives simple and quick access to all of the main areas of the application. We shall address each one in turn throughout the next few pages of this document.

When Autoplus is closed using the standard Windows® cross in the top right it will ask a reinforcing question before closing the application. ("Are you sure?"). Windows® cannot be closed with the Start button or any soft shutdown buttons without first closing Autoplus. This is a security feature to prevent you accidentally stopping your station's playback!



## ACQUIRING AUDIO

One of the first things you will want to do is to get some audio onto the system. We can do this in a variety of ways.

- 1, Rip from a CD using the inbuilt CD ripper (see 'Ripper' below)
- 2, Bulk import audio files that you already have on your PC or removable drive/media using the Import Engine.
- 3, Manually import an audio file from your PC or network via the Record/Edit controller
- 4, Make a manual recording using the Record/Edit controller
- 5, Drag and drop audio files from your PC or network directly into the Media Library

Each of these is covered in the next several pages.





## Audio Carts / Cuts

All pieces of audio are referred to as CARTS. During the design of Autoplus it was decided that presenting the user with a list of audio files wasn't particularly useful or user friendly. Instead we hide the files from the user and present every audio file as a 'Cart' or 'Cut'. Carts and cuts are the same. Every audio cart is assigned a unique 6 character alphanumeric code. Six characters is the default but it is possible to change this. This code can be assigned manually or automatically. This code is known as the 'Cart Number'. We store auxiliary data in an SQL type database for quick searching.

## Media Library



Fig 4. The Media Library.

The Media Library catalogues all of your audio and command cuts. The left hand pane displays a standard Windows tree and branch view of categories and sub categories. These can be configured to your own requirements using the Categories tab of the settings screen. Click the + sign beside a category folder to open the branch and see the sub categories associated with it. Then click a sub category and the right hand pane will show all of the audio in that sub category. Each category has an "All" sub category to allow a complete view.

Each category has an attribute which determines whether the audio can be faded. By default the Music category can and all the others can't. Therefore, if you have imported or ripped audio into the New category, it will not be faded if you try to mix (e.g. by using Next), therefore move your audio to a Music cat/sub cat and it will work as expected. You can do this with drag and drop or by using the Bulk Changer. The fade attribute can be set in the Categories tab of the settings screen or alternatively, in the setup.ini file (located on the Autoplus program folder and which can be edited using Notepad), find the section called [Category setup], then the category you have audio in and change the final digit on the line from 0 to 1. Save setup.ini and start Autoplus and audio in that category will fade. Clearly careful thought needs to be given to which categories are allowed to fade:- One would not normally allow jingles, layovers or commercials to be faded.

Below the Audio cuts folder structure is an expandable list of Command Cuts (see below). Also, optionally above the Audio cuts can be an Artists list allowing you to sort by artist rather than genre/type. In Fig.4 this is disabled.

You can right click on any part of the tree structure and select "Refresh" which will also collapse the structure. When reopened any changes to the library will be realised. Right clicking in free space in this pane will also allow you to launch the Bulk Changer, a utility that facilitates the mass movement of carts between categories, rather than having to use the recorder on a one by one basis to

achieve this (see below). The size of this pane can be varied by simply pointing the cursor at the right hand edge of the pane at which point it changes to a double-headed arrow (left to right) and whilst keeping the left hand mouse button depressed, moving the mouse to move the pane border.

You may drag and drop individual carts from one sub category to another. You may also drag and drop audio files from outside Autoplus directly into the library whereupon Autoplus will add them to the database.

In the right hand pane of the library it is possible to sort by any of the displayed fields:

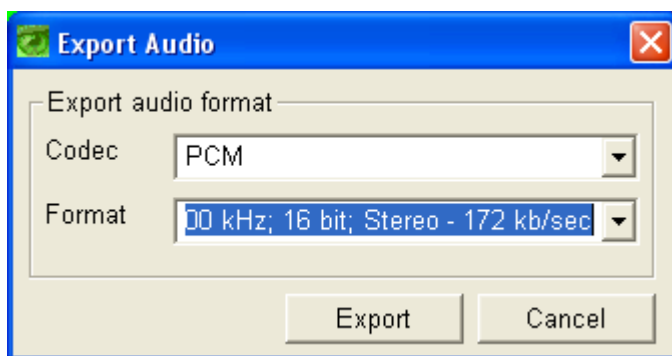
- Cart number (allocated and used by Autoplus for filing purposes)
- Title
- Artist
- Duration

Simply click the grey header bar for the appropriate parameter and click again to sort in the opposite order (i.e. ascending or descending).

Across the top of the Media Library is a search box. You can search by artist, title and duration. You can use sub strings and it will search all entries regardless of whether you are only viewing a sub category. The same search box is used for any type of search - powerful and simple! The duration search is ideal if you need to find audio of a particular length to fill to the top of the hour. You can use it in conjunction with the right click menu "Find Similar" for a very powerful "fill tool".

If you right click a cart in the media library, you can choose from the following options:

- Add to top of queue
- Add to bottom of queue (This is the same as double clicking the item in the library)
- Load to player 1 (and 2, 3, 4 or 5). Note: Any player that already has a cart in it will be greyed out to prevent you loading into it.
- Edit cart details: This will launch the record edit controller with your chosen cart in it. See below for details of all the operations possible in this screen.
- Export Cart Audio: This allows you to export the audio from the chosen cart in a variety of different formats, chosen by the Window shown. Having selected the format, click Export and a Windows Explorer window will open allowing you to specify the destination for the file. This functionality allows you to leverage your content in different formats for different uses and platforms.



Find similar: This option allows you to look for other carts similar to the one clicked. The option expands to the title, artist or duration. Therefore you can find all carts by the same artist, of the same title or of similar length (+/- 10 secs)

Cart History: This will display the last 10 (default number but changeable in settings) of plays. This details the time date and machine. This is useful for determining whether to play a cart at this time.

## Bulk Changer

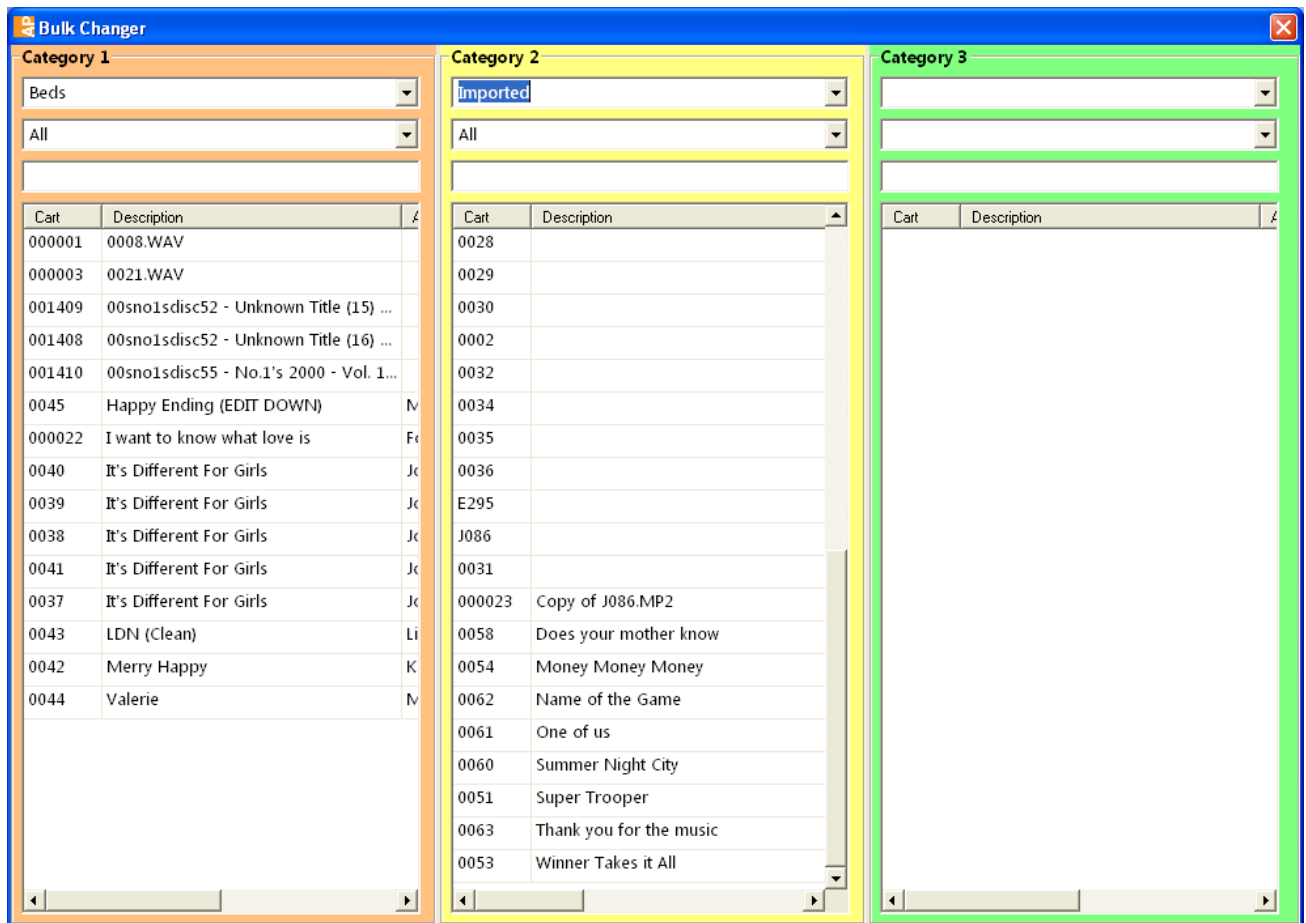


Fig.5 The Bulk Changer.

The Bulk Changer is accessed by right-clicking in the free space in the tree view of the Media Library. It allows the movement of multiple pieces of audio from one category/subcategory to another. The screen is split into three sections and each one can be set to one category/sub category combination. You may have bulk imported or ripped a large number of carts and want to sort them from the default "new/imported" or "new/ripped" sub categories into their final destination. Each pane also has a search field which acts upon the selected sub category only.

Select the current location of the carts to be moved in pane one of the Bulk Changer and one or two of their destinations in the other two panes and then drag and drop them from one to the other. You may select multiple carts by using CTRL and click or Shift and cursor (as is standard in Windows applications). You will be asked to confirm each move.

You may also use the Bulk Changer for bulk deletion of carts. Select the desired carts and hit the delete key. You will be asked twice to confirm the deletion.

## Record/Edit Controller.

There are a couple of ways to bulk import audio. To rip audio to your hard drive use the Ripper button (see below). If Import Engine is running (which will be indicated by a white icon with a pink musical note symbol in it in the Systray next to the clock on the Windows desktop) then any audio in the import folder will be automatically loaded into the library. More detail on the Import Engine is found below.

If you wish to manually import audio already on your PC or network, then click the RECORD button in Autoplus. Enter a cart reference of up to 6 alphanumeric characters (or click the "Find Next" button to have one allocated for you) and hit enter.

Note: the reference for the next cart no. is held in the file Freecart.dat in the data folder of Autoplus. If used on a network, the file should be common to all workstations and the path in the setup.ini file modified to suit.

Click the IMPORT button and browse to the audio file(s) on your hard drive or network. When selected, the track will load in to the recorder. You can then hit the PLAY button and listen to the track. Any ID3 tag information will be acquired but any that is not present (e.g. intro/outro markers) can be added by editing the carts in the recorder. The Import will automatically set the outro and start markers based on a level threshold set in the audio handling tab of the settings screen.

Finally you can create new audio: Hit record after entering a cart number and audio will be recorded from your selected recorder audio device (See settings below). This will allow you to record from a turntable/ microphone/MD etc via your mixer.

## AUX MARKS

Set the intro mark by clicking the SET INTRO button at (usually) the point the vocals start, then hit PLAY END and set the outro mark (if you wish to change the automatically set point) with the SET OUTRO button at the point of your choice (start of fade usually). The PLAY END button allows you to hear the last few seconds in order to set the outro mark without having to listen to the entire track! The default setting for the PLAY END is 10 seconds (i.e. it will play the last ten seconds of the track) but you can set this value to your choice by clicking in the box and overtyping. Autoplus remembers this setting for next time. The Import Engine will automatically set the outro marker based on a level threshold. If you import audio manually you can use the "Detect" button to perform this function so that you do not have to listen to the end of the track and set it yourself.

You may also set other aux marks if you wish. The START marker is useful for tracks that have long or very low level intros or with a silence at the beginning of the cart. This marker is usually set automatically but can be adjusted here. You may also set HOOK 4 and HOOK 5 markers. These marks allow you to attach a Command Cut (macro) at specific points in a cart. These are set by right clicking the hook buttons and selecting the "Set marker command" option. You will then be presented with a dialogue box that allows you to select from any of the Command Cuts setup on your system using a drop down menu. The second right-click option on the hook buttons is to "Clear marker command". For more information on Command Cuts, see below.

## **OTHER RECORDER SETTINGS**

Don't forget to name the artist and track/description (automatically entered if you import MP3 with correct header info or if you use the Autoplus Ripper and Import Engine) and set the dates for start and expiry of the cart. The uses of this feature are mainly for trails or adverts that are date sensitive. You are able to prevent carts being scheduled/played outside of prescribed date ranges. For music tracks not affected just select an end date that is several years hence! Autoplus automatically sets this to a date in the year 2099. Clicking the pull down arrow beside either date gives you a current month calendar which indicates today's date. By clicking a date you select it. You can scroll through the months by using the left and right arrows beside the month and to quickly change years, click on the year and up and down arrows will appear for your use.

You can now select a category and sub-category to store the cart in. You can also add comments in the box centre and right bottom. You can also choose a colour which will appear in the queue when the cart is used. Just click in it and type. Finally click "Save Cart". If you have an audio editor installed (see settings below) or have purchased the Autoplus Editor, you can click edit before saving to launch the editor and carry out any work you feel necessary. The operation of Autoplus Editor is described later in this manual.

You can drag and drop a cart from the library back in to the recorder by dropping over the Cart number field or simply type its cart number in to the recorder to edit any of the properties described. You can TAB between fields in the recorder screen when the recorder is not playing back.

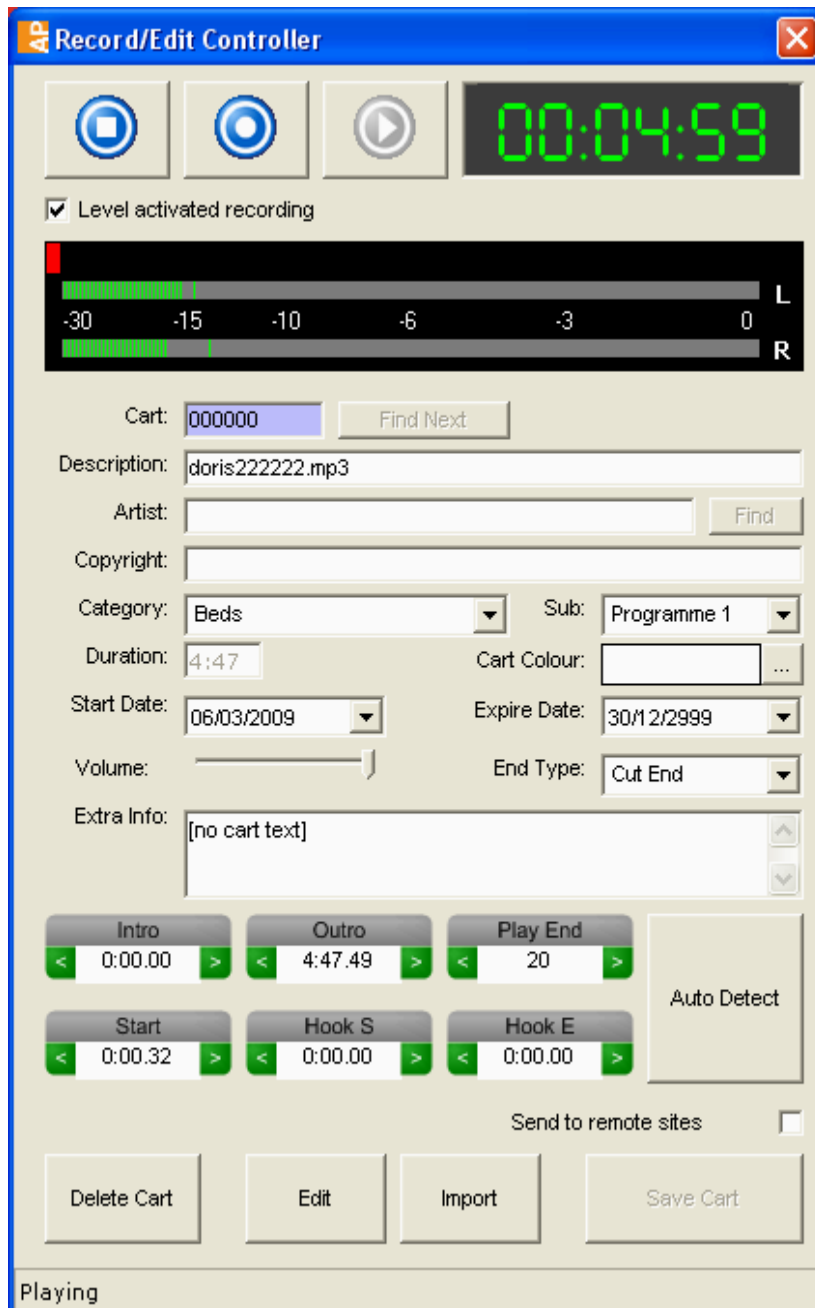


Fig.6. the Record/Edit Controller

At the top of the screen we have the play and record controls, plus recording and playback level meters. The level activated recording tick box allows you to set the system to wait until audio is detected before starting recording.

The “find next” button automatically enters the next available cart number. The red cross allows you to close the cart without saving changes. You will be asked to confirm this action. The cart auxiliary information, such as description, artist and copyright text can be entered here. You can also select which Category and Subcategory the audio is to be stored in.

The end type can be manually set for a cut end or a fade end. This then displays the appropriate icon as a presenter aid.

Here we have the ‘markers’. Each marker is a position within the audio file (stored in milliseconds).

- o Intro - the point where the vocals start. This provides an on-screen count down for presenters.
- o Outro - the position where, during automated periods, the next cart can be started. You’d typically place this marker half way through the song fade.

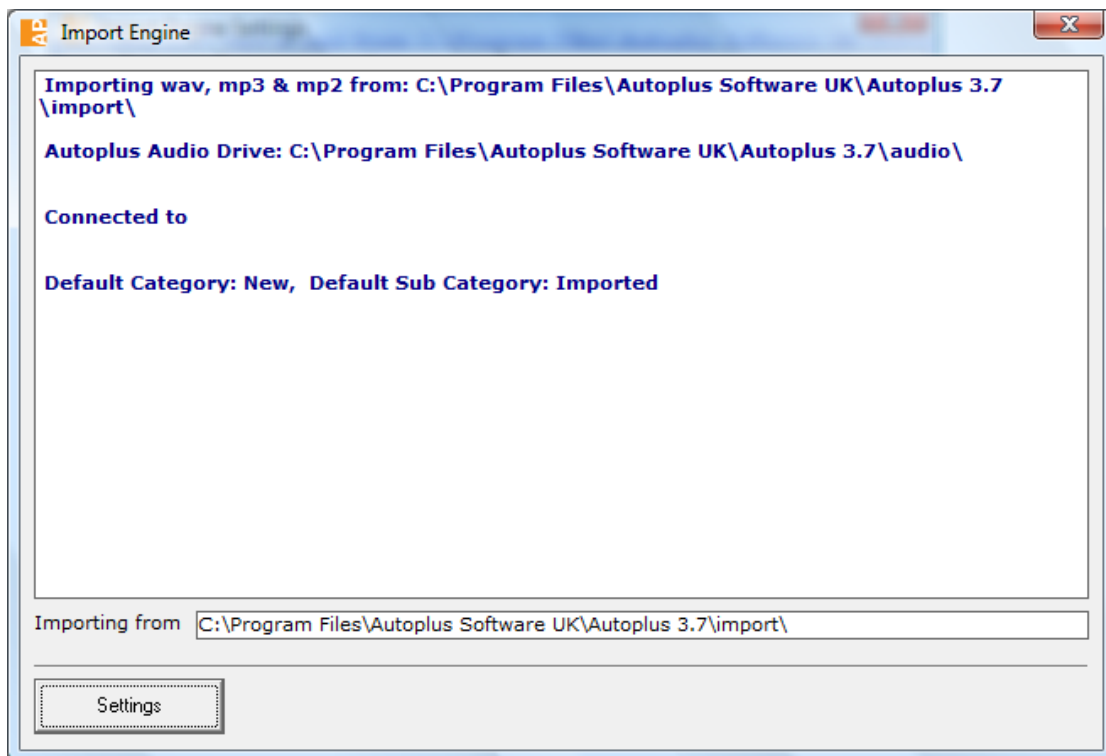
- o Start – this sets where you want the cart to start playback. Typically this would be used to stop the playback of silence recorded at the start of a cart.

You can also enter additional text for each cart. This could be music trivia, etc. This is displayed by hovering the mouse pointer over the title of the cart player when the track is playing.

The send to remote sites tick box is used for distributing audio files to other Autoplus machines on your LAN or WAN in conjunction with Autoplus Site Server (see also Import Engine settings). Finally, there are control buttons that let you delete, edit, browse for audio and save the cart.

## Import Engine

Autoplus can automatically import WAV, MP2, MPG, MP3, WMA and OGG audio files that are saved to a selected directory. If an audio file(s) is placed in this directory it's moved into the Autoplus audio store and a database entry is created. Some users may have commercials, news or travel delivered via a LAN, WAN or Internet connection as an audio file. Once delivered, this file can be moved to the import directory. Other uses of this feature include production, where existing editing software is used. The final mix can be saved directly to the directory and imported ready for playback.



*Fig. 7 The Import Engine*

Cart numbers are automatically assigned for automatic importing, although you can specify the prefix for imported cart numbers and the default category and sub-category. The default category and subcategory upon installation are NEW and IMPORTED. The service is accessed via the white icon with pink musical note symbol present in the systray beside the Windows clock. If you click it you are offered the choice of "Show service" which displays the activity window shown in Fig.7 or "Close service" which stops the import engine running. To restart the service either double-click on the "V37importengine.exe" icon in the Autoplus program group or reboot the PC if you have set Windows to load it at start-up.

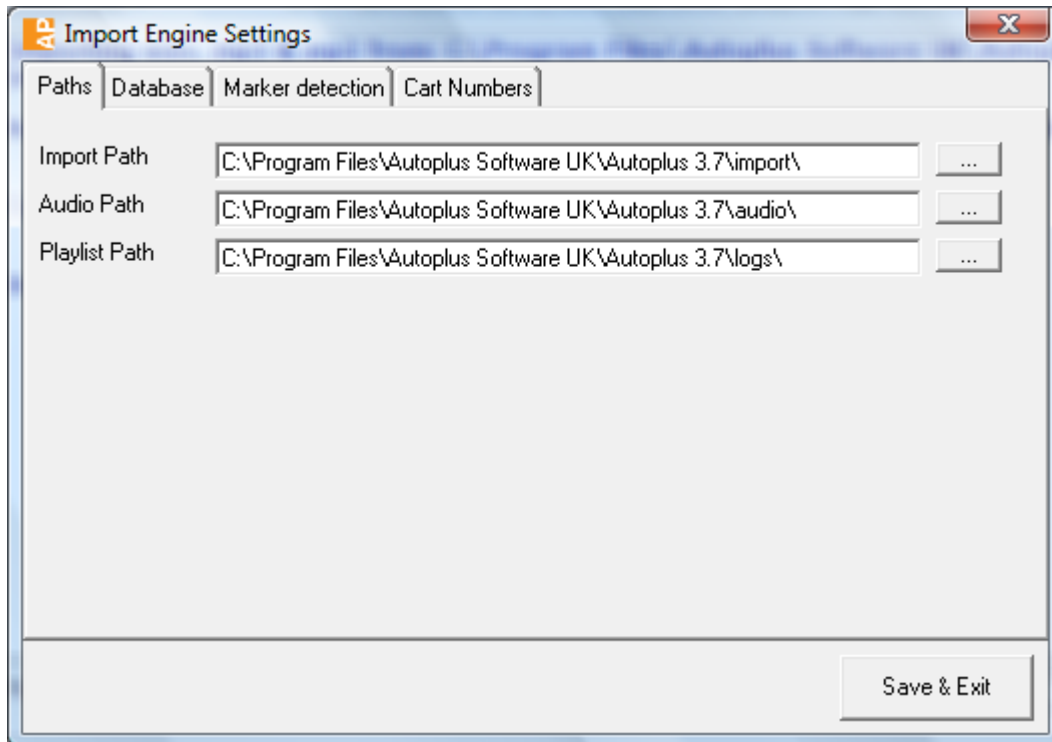
### Import Engine Settings

At the bottom left of the Import Engine Window is a settings button. This gives access to all the settings of the Import Engine which is a separate application to the main Autoplus application and it will usually run even when Autoplus itself is not running. Indeed it is perfectly reasonable in a medium sized system for a server machine to run Import Engine without the main Autoplus application even being installed.

It is also important to not have multiple instances of Import Engine running on a network. Otherwise they can fight! Have one machine doing the importing and it's import location shared to all workstations who are contributing audio or logs.

The first tab is “Paths”. This sets the path to the Import folder, Audio location and the Playlist logs folder respectively.

It is important to remember that when playlist logs are sent from a third party music scheduler, that they are exported to the same import location as audio and the Import Engine converts them to the xml format required by Autoplus. The Import Engine automatically knows the difference between audio and playlist files and sorts them accordingly.



*Fig IE1. Import Engine Paths tab*

The next tab is the database tab. The initial few settings are the same as the in the database tab of the main application (see Settings below). This simply tells the IE where the database (server) is and what type of database it is. Also set in this tab is the category and sub category that are assigned to all imported audio files.



The screenshot shows the 'Import Engine Settings' dialog box with the 'Database' tab selected. The dialog has four tabs: 'Paths', 'Database', 'Marker detection', and 'Cart Numbers'. The 'Database' tab contains the following fields and options:

- Database Type:** A dropdown menu set to 'MySQL'.
- Server:** A text field containing 'localhost'.
- Username:** A text field containing 'root'.
- Password:** A text field containing 'xxxx'.
- Category:** A text field containing 'New'.
- Sub Category:** A text field containing 'Imported'.
- Send imported audio data to site sync tool:** An unchecked checkbox.
- Site Sync IP:** A text field containing 'localhost'.

A 'Save & Exit' button is located at the bottom right of the dialog.

*Fig IE2 Import Engine Database tab*

Finally, there are the settings for use with Autoplus Site Server (the site sync tool). If Site Server is installed, then the tick box should be ticked and the address of the Autoplus Site Server entered in the "Site Sync IP" field.

The screenshot shows the 'Import Engine Settings' dialog box with the 'Marker detection' tab selected. The dialog has four tabs: 'Paths', 'Database', 'Marker detection', and 'Cart Numbers'. The 'Marker detection' tab contains the following fields and options:

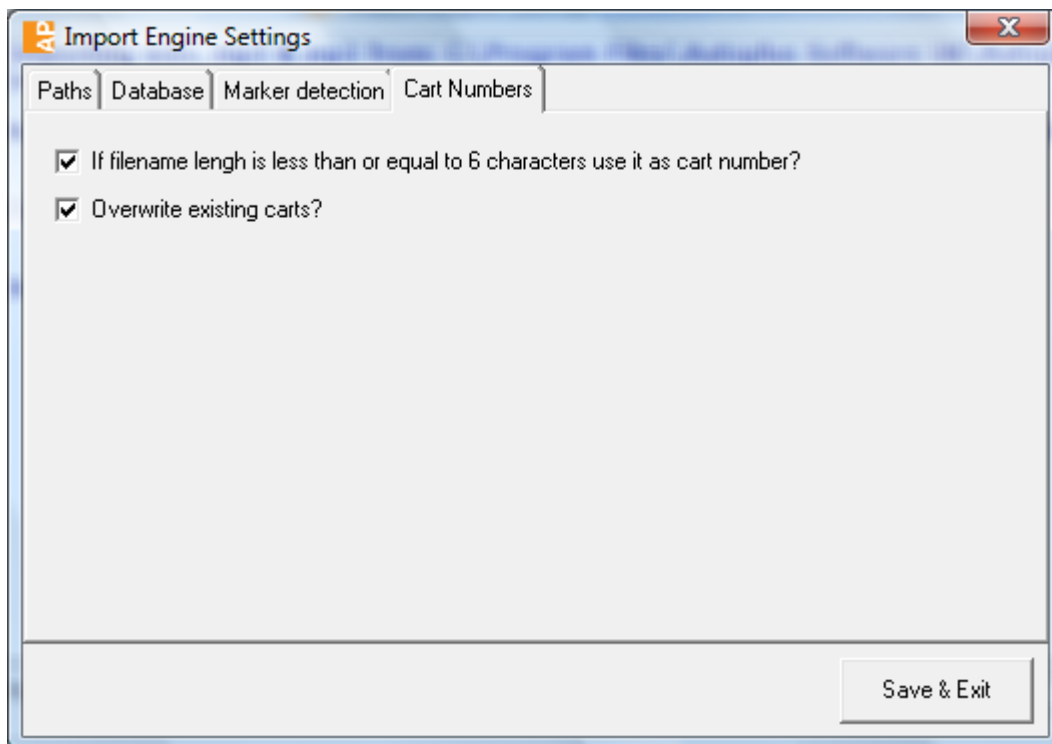
- Automatically detect start/outro markers:** A checked checkbox.
- Always overwrite existing markers:** A checked checkbox.
- Outro Marker Detection:** A numeric field set to '-6.8' with a 'db' unit label.
- Start Marker Detection:** A numeric field set to '-30.3' with a 'db' unit label.

A 'Save & Exit' button is located at the bottom right of the dialog.

*Fig IE3. Import Engine Marker Detection tab.*

On the third “Marker detection” tab, we can enable (default) or disable by unticking the facility to detect start of audio and outro markers for all imported audio. We can also determine whether these markers are overwritten where the audio already exists. One may wonder why this would ever be the case but the IE has the facility to re-use cart numbers (see Cart Numbers tab below). Consider an example where a daily Entertainment News package is produced and played out in the schedule. A cart can be created and called “Entnmt”. If the new content each day is saved with this filename and dropped into the Import folder, it will (subject to the IE settings) be imported using this same cart number/name (to keep scheduling of it simple) and the markers re-calculated based on its new content.

Finally on the Marker Detection tab, are the threshold settings for the two markers. These settings apply only to bulk Imported audio- not ripped or manually imported audio.



The final tab in the Import Engine settings is the “Cart Numbers” tab. There are two options here and they are selected by tick boxes. Both have been eluded to above.

### Quick Record

By hitting the QR Start key on a RITA keyboard at any time you instigate “Quick Record”. This will record into the next available cart number whatever is heard on the record input at the time. This is ideal for recording phone calls which can then be edited under the cart number from the library via the recorder. Hitting QR Stop will stop the recording session and save the cart. The cart will appear in the library as “Quick recording: *logged user*” with the date as the artist.



Fig 8. The Quick Recorder

## Autoplus Editor

The Autoplus editor is an optional extra which can be activated by an additional dongle code at any time. It is accessed via the “Edit” button in the record/edit controller screen unless you have assigned this to a third party application in the Autoplus settings screen.

The editor is designed to provide essential features for during show and pre-production situations such as importing new audio (e.g. top and tailing and normalising) and recording listener calls before transmission (cutting out silences, profanity etc). It facilitates this without having to leave the main application and whilst playout continues.

The functions available in Autoplus Editor are:-

- Cut, Copy and Paste
- View zooms in, out, full and selected (using mouse to highlight a section)
- Trim silence
- Insert silence (for a user set duration in mS)
- Adjust audio tempo
- Reverse playback
- Change playback rate

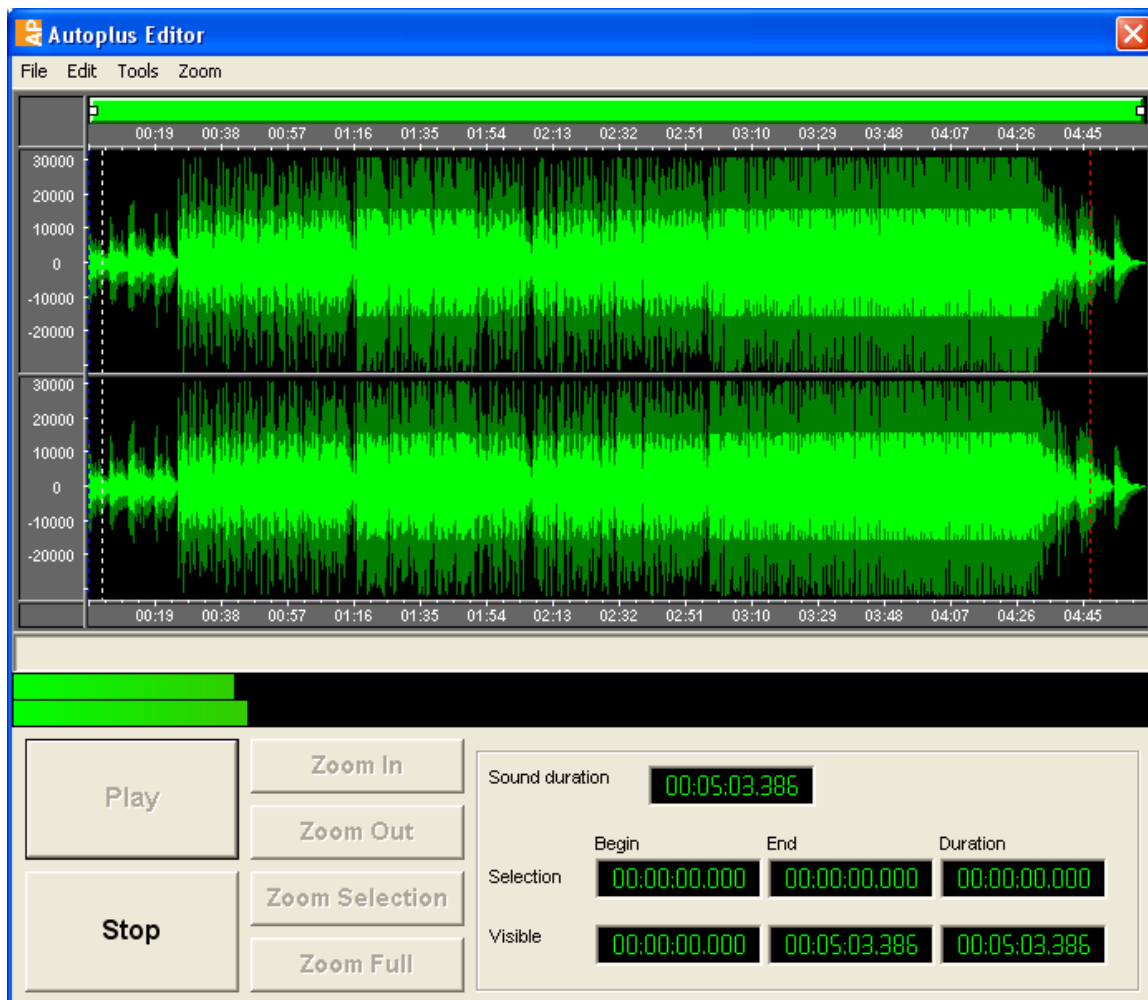


Fig 9. Autoplus Editor

The editor also contains a series of time displays (bottom right), indicating the overall sound file duration, the begin and end time points and duration of the selected (highlighted) section and the same for the section visible in the waveform view (based on zoom factor)

## Ripper

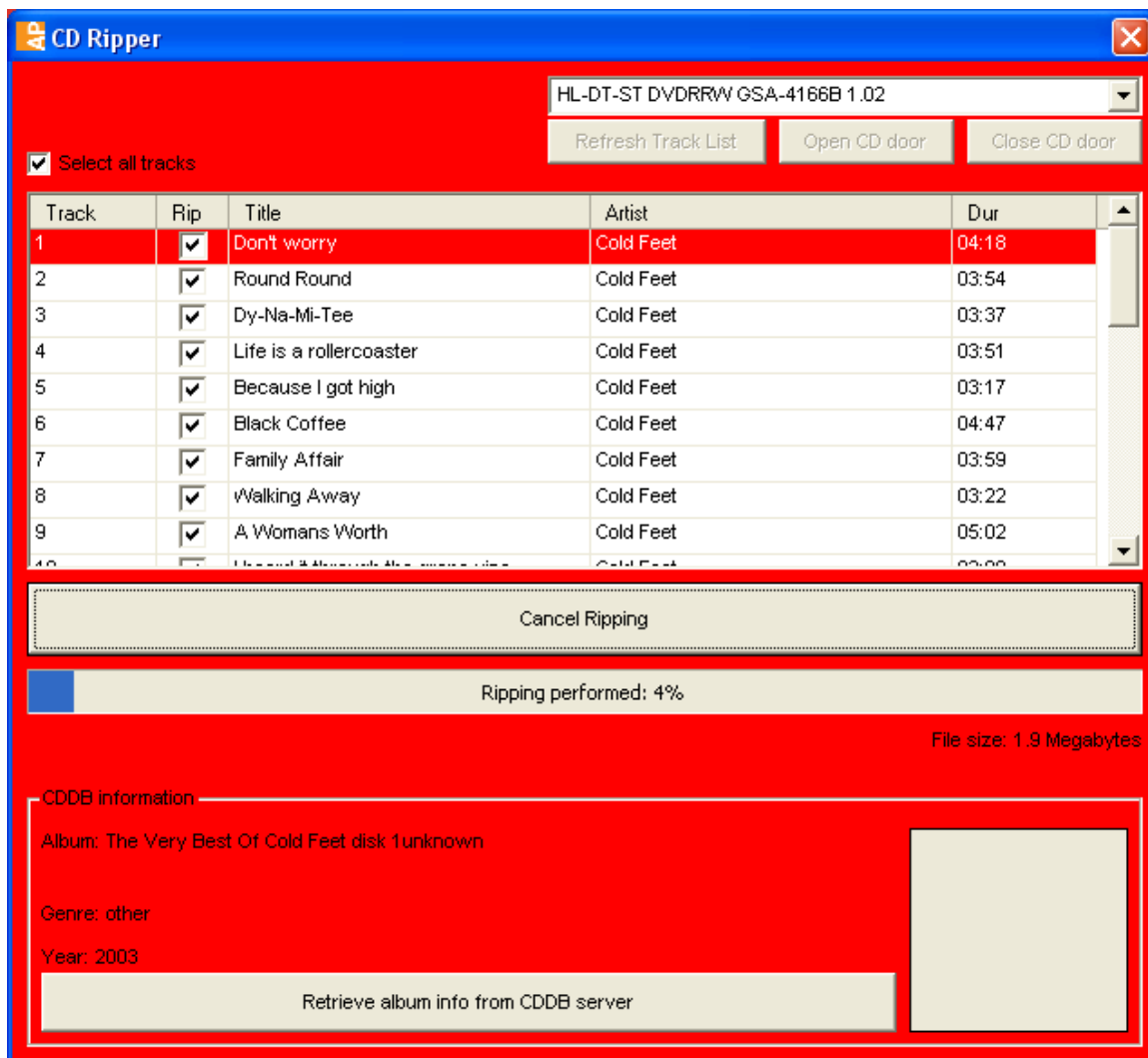


Fig R1 The Autoplus ripper in action

The built in Autoplus ripper has all the functionality to be expected of a CD ripper but with the bonus features that it sets the start of audio and outro markers automatically and then inserts the data into the Autoplus database. The ripping speed will be a little slower than other rippers but the time saved with setting markers more than compensates for this.

From the top of the screen, you can select the CD drive you wish to use from the drop down list. There are present here buttons to refresh the list (if you swap CDs with the ripper already open for example) and to open and close the drive door. The track list will be displayed and if an internet connection is available, the bottom "Retrieve album info from CDDB server" button will become available. This will when clicked populate the title and artist fields for each track.

**Note: When a compilation album is being ripped, it is possible that the artist will not be correctly identified and in fact be listed as the album title or "Various". This is not a fault of the software.**

Also, if an album cover image is available from Amazon®, this will be displayed.

The tracks to be ripped are selected by clicking in the "rip" tickbox. A "rip all tracks" tickbox is also provided for convenience. The tracks will be ripped to the format specified in the Audio Handling tab of settings in Autoplus.

Clicking the “Rip Selected Tracks” button will start the process. The Window will turn red (as in Fig R1) and a progress bar for the current track will appear under the rip button. The Rip button will become a Cancel button at this point should it be necessary. Once all selected tracks have been ripped the screen will return to its normal colour. Ripped tracks will be highlighted in red if ripping is cancelled as in Fig R2

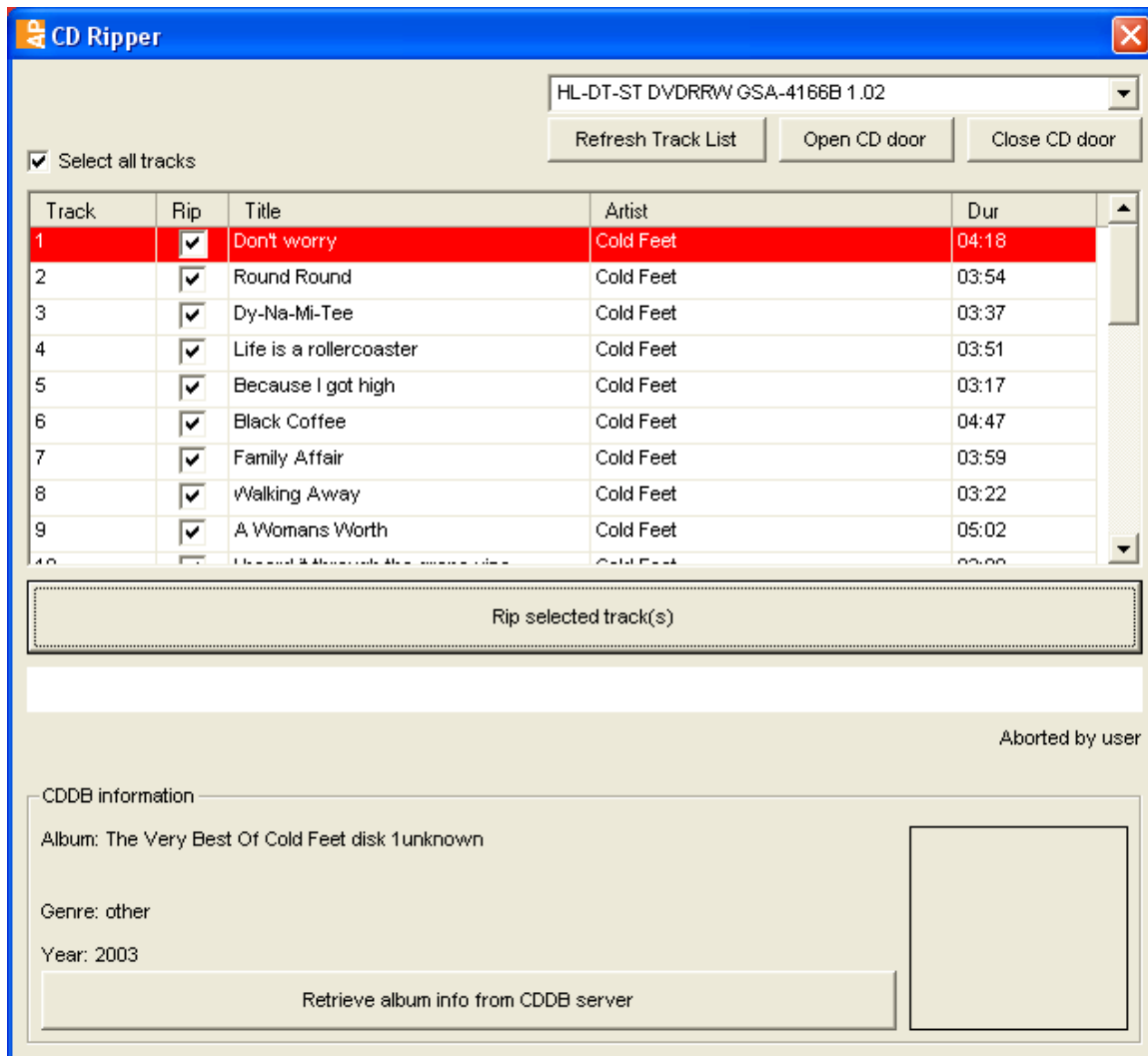


Fig R2. Ripper post cancel.

## QUEUE

To play carts you can drag and drop or double click to drop tracks from the library into the queue (see Fig.9). This will show the order of tracks to be played. You can then simply hit the green NEXT button on screen or on the RITA1 keyboard (or F10 on normal keyboard) to load the top cart into the next available cart player and play it. Alternatively you can hit PLAY on any available cart player and it will load and play the top cart. If the “change mode” button is set to auto or Playthrough mode (The body of the queue is green as in Fig.8) all carts in the queue will automatically load into players and segue until all are played. If the mode button is set to Play stop (The body of the queue is red) the system will stop at the end of the current track. You can insert a stop break into the queue so that in playthrough mode it will stop at a certain point. Stop breaks are entered using a right click at the appropriate point in the queue and appear in red in the queue. Queued audio carts are shown with a musical note icon to the left. Autoplus regularly checks for the presence of the audio file before playback and if it is not found the icon in the queue will have a red cross through it and so you know that the cart will not be played. In sequence (playthrough) mode, the system will simply move on to the next cart and the one with no audio found will be deleted from the queue. Command Cuts have a cog icon and are shown in red as are stop breaks.



Fig.9. The Queue

You can alter the order of carts in the queue by dragging the carts upwards or downwards and dropping them where required. Alternatively you can highlight a cart and use the up and down arrow buttons to the right of the queue. You can also highlight a cart and click TRASH or hit Delete to dump it from the queue. You can drag an item from the library into any position in the queue. It is possible to set user restrictions that prevent items being added to or removed from the queue or even from being re-ordered.

The PREVIEW button is the equivalent of the CUE or PFL button on your desk. As long as you have a separate audio device assigned to the feature (see SETTINGS below) you can preview a selected cart in the queue. If you use the same audio device then the preview audio will be heard on the same output as the cart players and so be somewhat pointless! The button will change between PREVIEW, END (where it will play the last ten seconds) and STOP just by clicking it. See Fig.9.

Summary of buttons under the queue from left to right:

- **NEXT** (green with blue symbol). The Next button will start playback of the top cart in the queue in the next in sequence Cart Machine.
- **TRASH**. The trash button is self-explanatory. To remove a cart from the Queue you must first select the cart you wish to remove by highlighting it and then press the Trash Button. You may repeatedly hit the TRASH button to delete carts in sequence and if you hold down the TRASH

button for 5 seconds it will delete all items from the queue. The RITA2 keyboard also has a Clear Queue (CQ) button.

- **PREVIEW:** This is equivalent to a CUE or PFL button on your desk (as long as it is assigned to a dedicated audio device – see settings later). A preview player opens (See Fig.9) and allows you to play the start then the end of a cart.
- **CHANGE MODE.** The queue has two modes; *PlayThrough* and *PlayHalt*. This controls if the carts should start automatically. If this is selected, the entire contents of the queue will be played. The Outro Auxiliary marker that we set in the Cart Recorder will activate the next item to play.

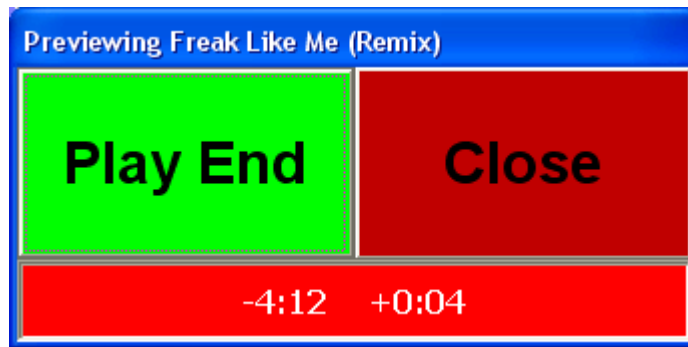


Fig.10 Preview player

**NOTE:** NO audio is played in the queue; this is simply a way of sequencing audio carts ready for playback from the Cart Machines. When the top item starts playback in a Cart Machine it's removed from the queue.

### How to Play A Cart

We have explored the 4 main areas of Autoplus. Playing an audio cart in Autoplus is simple:

- 1) Find the cart in the Cut Library
- 2) Drag and Drop the cart into the desired Cart Player OR the Queue
- 3) Click the PLAY button of the loaded Cart Player OR the NEXT button on the Queue

### How to stack carts so they play one after the other

You can stack carts in the Queue so that they play sequentially. Drag and Drop the carts from the Cut Library into the Queue. You will notice a mode button on the bottom of the Queue. Hitting this will cause the colour of the whole queue window to change between red and green in colour. When the queue is green the Queue is in 'Playthrough' mode. Each item will play in-turn automatically. When the Queue is red it is in 'Playhalt' mode. You will have to start each cart manually.

When your carts are loaded in the queue, press the NEXT button. The top item will start. Pressing the button again will start the next item, etc, etc. **NOTE:** when the Queue is set in Playthrough mode it will start each item automatically.

### History tab

The history tab shows all carts that have been played. This allows easy back announcing of music. There is a tick box on the tab which allows the user to view just audio played on the workstation being viewed or to view audio played on all workstations on the network. This means that one can see if a track has recently been played on a sister service/station before it is played on the user's own.

## Scheduler

The SCHEDULER button will allow basic “jukebox” functionality. Using SETTINGS (see below) you can:

1, Set up various hour patterns. These can be as simple or as complex as you desire and they are based on the categories and sub categories you have set up in your media library. Therefore the more specific you make the library sub categories, the greater the resolution and control you have in the hour patterns.

2, Assign one of the hour patterns to each hour of every day of the week. Hour patterns can be used as many times as you wish.

3, Determine whether each hour of each day is normally a Fully Automated hour or a Live Assist hour (i.e. whether a presenter is expected to be involved in the show at transmission)

The detail of this is discussed in the settings section below.

If the Scheduler button is turned on (by clicking it) it will turn from red to green and the queue will be populated with audio based on the criteria in the hour pattern assigned to the current hour. E.g. if you click the button at 1.20pm on a Thursday, the system will look at which hour pattern is assigned to Thursday hour 13 and choose audio based on the categories and sub categories listed in that hour pattern. When each cart is used, the cart is put at the bottom of the pile so that it is the last cart to be picked again in its given category. The artist is also put at the bottom of the pile. Therefore even if the next cart to be chosen is by the same artist, it will be skipped to provide artist separation. This all ensures even cart rotation.

The scheduler will load 5 items at a time. When it hits the outro of the last item in the queue, it checks to see if the scheduler is still turned on, then checks the time and loads more audio based on the then effective hour pattern. If you wish to load more or less items at each refresh, you can set the number per hour per day in the autoschedule.sch file in the data folder of the Autoplus program folder. Simply change the value of “lookahead=5” for each hour of each day. It is important to not load excessive numbers of carts where you change hour patterns frequently throughout your schedule unless you use a mechanism to clear down the queue at programme changes. The most effective way to do this is with a Command Cut (see below) which clears the queue and switches off the scheduler just before the top of the hour and then restarts the scheduler just after the top thus loading content based on the new hour’s pattern. If you turn off the scheduler, it will not load more carts when the queue is empty.

If the hour planner (see Settings section below) is set for the hour to be Automated (as opposed to Live Assist) and an hour pattern is assigned to the hour, it will force the scheduler on. If the hour is set as Live assist, the user can decide whether to turn on the scheduler. The grey button in the top right hand corner of the main screen will follow these settings and can also be manually set by clicking. It is important not to confuse this button and its role (which applies equally to Active Log led automation) with the scheduler button’s role.

It is very important to understand that this system is not a replacement for conventional music scheduling. The inbuilt system does not take into account music tempos or less obvious artist clashes (e.g. it would not associate a solo track by John Lennon as clashing with a track by the Beatles). However, there are users who cannot afford to buy music scheduling or whose criteria do not justify it or where there is insufficient staff resource to maintain such a system. If the limitations of the inbuilt rotation tool are understood and accepted, then it provides an alternative for these users.



Autoplus is compatible with most professional music scheduling packages on the market. Please contact us for more information and read later in this guide in the Active Log section. If the inbuilt scheduler is not used, the button can be removed from the queue display by changing a setting in the setup.ini file. This will avoid confusion and allow more space for the other queue buttons.

### Create a Playlist button.

It is possible in Autoplus 3.7 to further utilise the inbuilt scheduler to create music logs in advance. Users of the automation in earlier versions of Autoplus will be familiar with the fact that it simply scheduled on the fly and so until audio appeared in the queue you had no idea which actual carts it would choose. There is now an additional option.

If you click the “Create a Playlist” button, you will be presented with a window as below. Here you can select a day or range of days by date and get Autoplus to schedule audio based on these same scheduler hour clocks. This will generate (for each day) a log in the Active Log screen (see below) which can then be reviewed, edited, voice tracked and segue edited! During the schedule generation, you can also stipulate that exact time markers are used at toh. These are explained later in the section on Active Log.

The screenshot shows a Windows-style dialog box titled "Generate Playlist Schedule". It has two tabs: "Select schedule date" and "Schedule Information". The "Select schedule date" tab is active, showing a "Scheduling Settings" group box. Inside this group box, there are two date pickers: "Start scheduling" and "End scheduling", both set to "09/04/2009". Below these is a checkbox labeled "Use Exact Time Markers" which is currently unchecked. At the bottom of the "Scheduling Settings" group box is a button labeled "Generate Playlist". The "Schedule Information" tab is also visible but empty. At the bottom right of the dialog is an "OK" button.

Fig CP1: Generate playlist schedule screen.

## Layover Magic

Layover magic is a funky automation trick. It allows you to schedule any item held in the “Layover” category (and only in this category) between two pieces of music and it will automatically play up to the intro of the second piece of music. Layovers are usually dry drops. If we consider two examples:-

Track one is playing in a cart player and hits it's outro marker

Next in the queue is a Layover. It is 8 seconds long.

Track two has an intro of 14 seconds.

In normal operation it would just play the three carts in sequence but because the middle one is a layover, it treats it differently. In this example, it will take track two from the queue into a player at the same time as the layover (i.e. when track one hits its outro marker) and it will start playing track two BEFORE the layover. After a further 6 seconds it will start to simultaneously play the layover from its cart player and thus the layover will finish playback just as track two hits its intro marker: Slick!

In the converse situation where the intro on track two is shorter than the layover (for example our layover is still 8 seconds long but the intro of track two is 4 seconds), the system will play the layover directly at the outro of track one and then after 4 seconds, start track two to again obtain a snug fit to the intro marker. Therefore the system has inserted a gap between the two pieces of music to fit the layover.

## Cart Players.

There are five cart players in a stack. It is possible to have more or less by obtaining a new code for the licence dongle. By default the top three act as a single sequence player. The other two can be introduced into the sequence by clicking the small blue “s” buttons in the top right of the players. The default sequencing can be configured in the setup.ini file. Each of the players (1-3, 4 and 5) can be assigned to a different audio device and thus a different channel on your sound desk. Equally they can be all streamed through one sound card.

From the library you can bypass the QUEUE for single carts. You can drag and drop tracks from the library in to a chosen cart player. Whether you have directly loaded the cart player(s) or the queue you can then hit the play button on your chosen cart player or on one of the optional RITA keyboards. If you hit F2, F3, F4, F5 or F6 keys on your normal keyboard you will play the top cart from the queue into players 1, 2, 3, 4 or 5 respectively. ALT plus the F keys stops the appropriate player- one press for fade to stop and two presses for an immediate stop (see below).

The cart player has three main buttons. The play button (Green with blue triangle on the RHS) is on the right. If a cart player is empty, you can click the play button (or indeed anywhere in a player- an ideal tool for touch screen use or for those users with limited mobility) and it will load the top item from the queue and play it. If a cart is loaded into the player, the green play button will flash indicating that it is cued and ready to play.

The left hand button is a stop/eject button. The speed of the fade when the button is pressed is set in the configuration settings (see below). To stop a cart immediately, click the stop button twice. There is an option (configured in the setup.ini file) which changes the mode of operation of the stop button so that a single click causes the player to recue. If the stop button is pressed once whilst not playing (i.e. already in stop mode) but with a cart loaded in it, then all the other free cart players (i.e. those with no cart loaded) will turn orange and display “MOVE HERE”. Clicking anywhere inside any of these orange players will result in the cart moving to that player and into stop mode. This is a feature designed for those occasions where you drag a cart from the library into the wrong player. The final button of the three deck buttons is in the centre and is the yellow PAUSE button. A single click will pause the cart where it is and a further click will start it playing again from the same position. When a cart player is in pause mode, the pause button flashes alternately yellow and pink.

The cart player buttons are designed to be familiar to those used to physical CD or MD or NAB cart players.

The cart players display a variety of different information (See Fig.12). Initially it displays an unambiguous “EMPTY” when no audio is loaded. The player next in the sequence will instead display “Next to Play”.

From the cart start, you will get a countdown on the left display showing seconds to the intro mark- i.e. how long until you have to stop talking! The progress bar across the bottom of the player will run from right to left (backwards!) for the duration of the intro. At the intro mark the display will revert to elapsed time and the progress bar will start to move from left to right. The right hand display indicates time remaining on the cart. At 10 seconds to the outro mark, the right hand time display will change to red and the progress bar will also change colour to red indicating that the cart will soon reach it's outro mark (and if in play-through mode the next cart will start).

Throughout cart playback, the player also displays the title, artist and cart number. There is also a level meter display on the right hand side of the player.

You can manually invoke a fade when playing by clicking the stop button (left hand button).

You can skip through the cart by dragging the yellow progress bar with the left mouse button.

### Other Cart Player Functionality

The colours of the player with the possibility to achieve gradients from top to bottom can be set in the settings screen (see below). By right clicking on the player you can set the font and font size for the text displays in the player. Each player can have these set individually.

Finally the cart players will automatically resize with different Windows desktop sizes/resolutions.

## Quick Buttons

Each button (20 per page and 20 pages) can have a cart or a command cut (see below) assigned to it. These are hot buttons organised in pages and using LOGONS (see below) per presenter. Clicking on a button will play the cart or action the command cut whatever the main screen is doing so audio will be played over the top making this the ideal place for jingles, drops and effects. Hitting the button again will stop it.

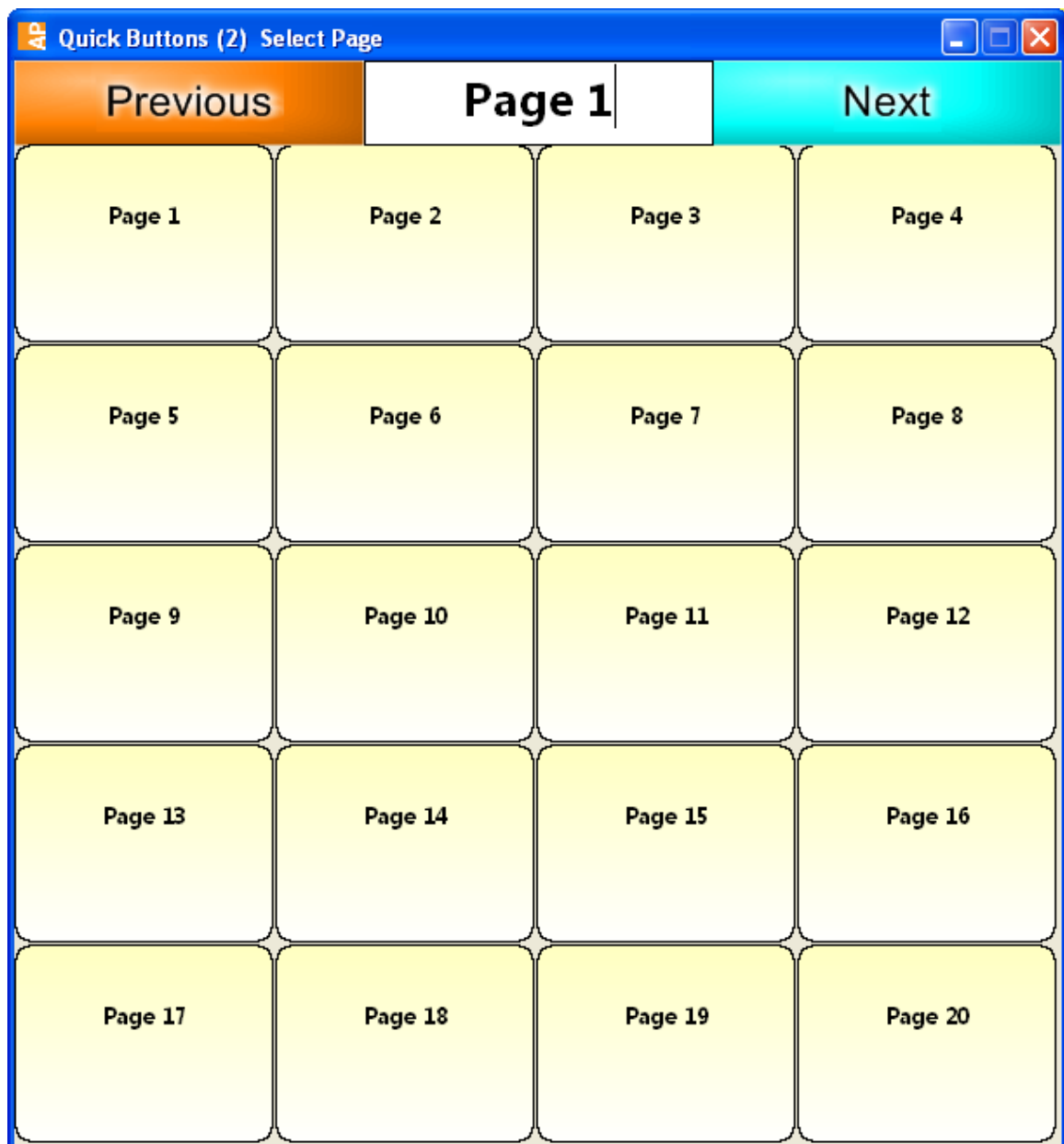
The Quick Buttons can be separately configured to any available audio device. When playing, the button in action is highlighted and a time countdown and progress bar is displayed. This indicates intro and outro markers.



Fig QB1. Quick Buttons screen

Each button can be customised in colour (background and font) by right clicking. Customisation will only take effect if there is something assigned to the button. You can drag and drop carts from the Library on to buttons in the button box for speed and simplicity. Each button within the page can be fired by using ALT plus a letter (A-U) in the order top left across

the top row then second row left hand button (ALT F) and so on. Pages are changed by either scrolling with the Previous and Next links or clicking the "Page n" link to produce the display in Fig QB2. below. From there simply click the page you want to access. All of this functionality is available from the optional RITA3 keyboard.

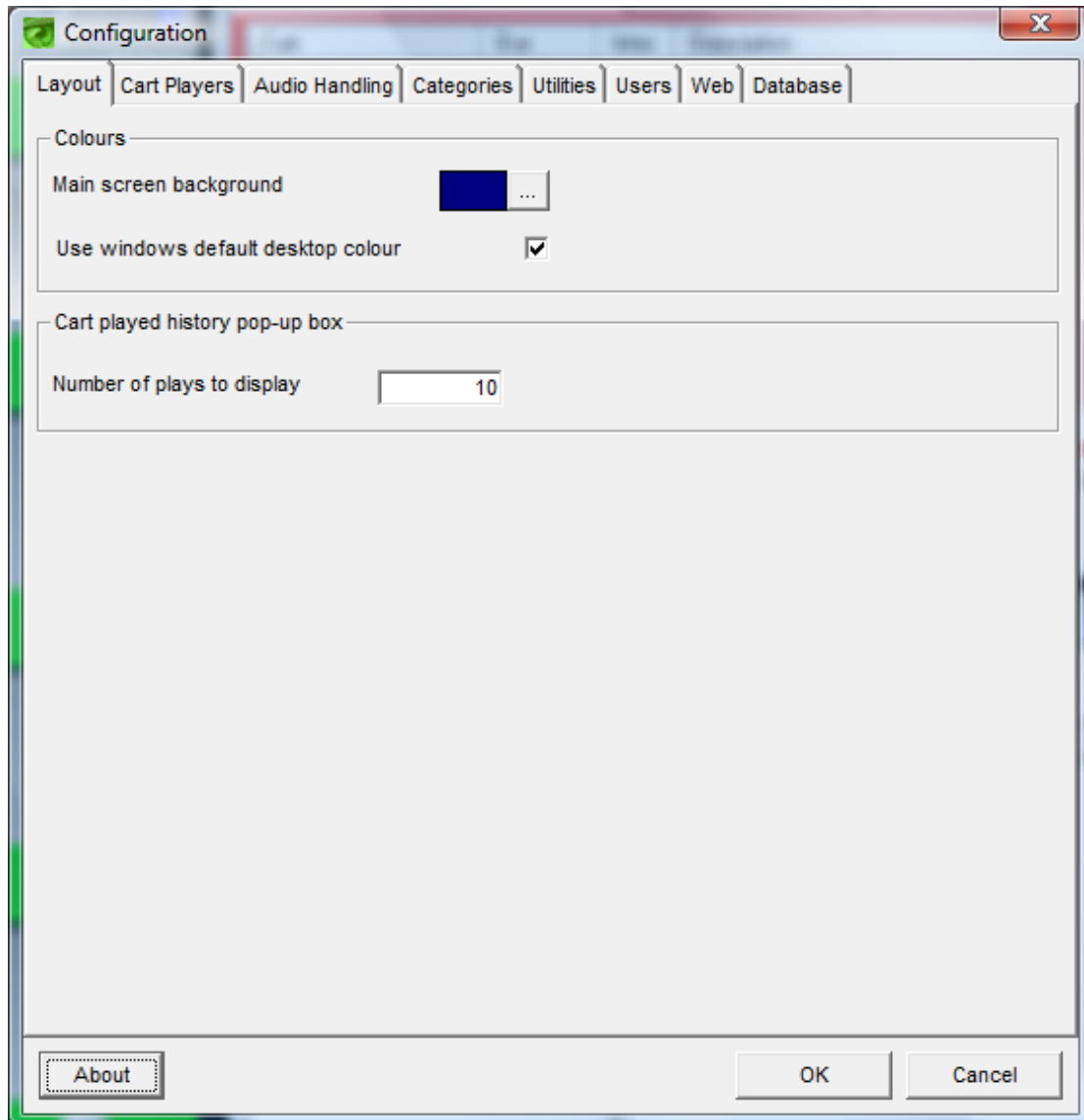


*Fig QB2. Quick Buttons select screen*

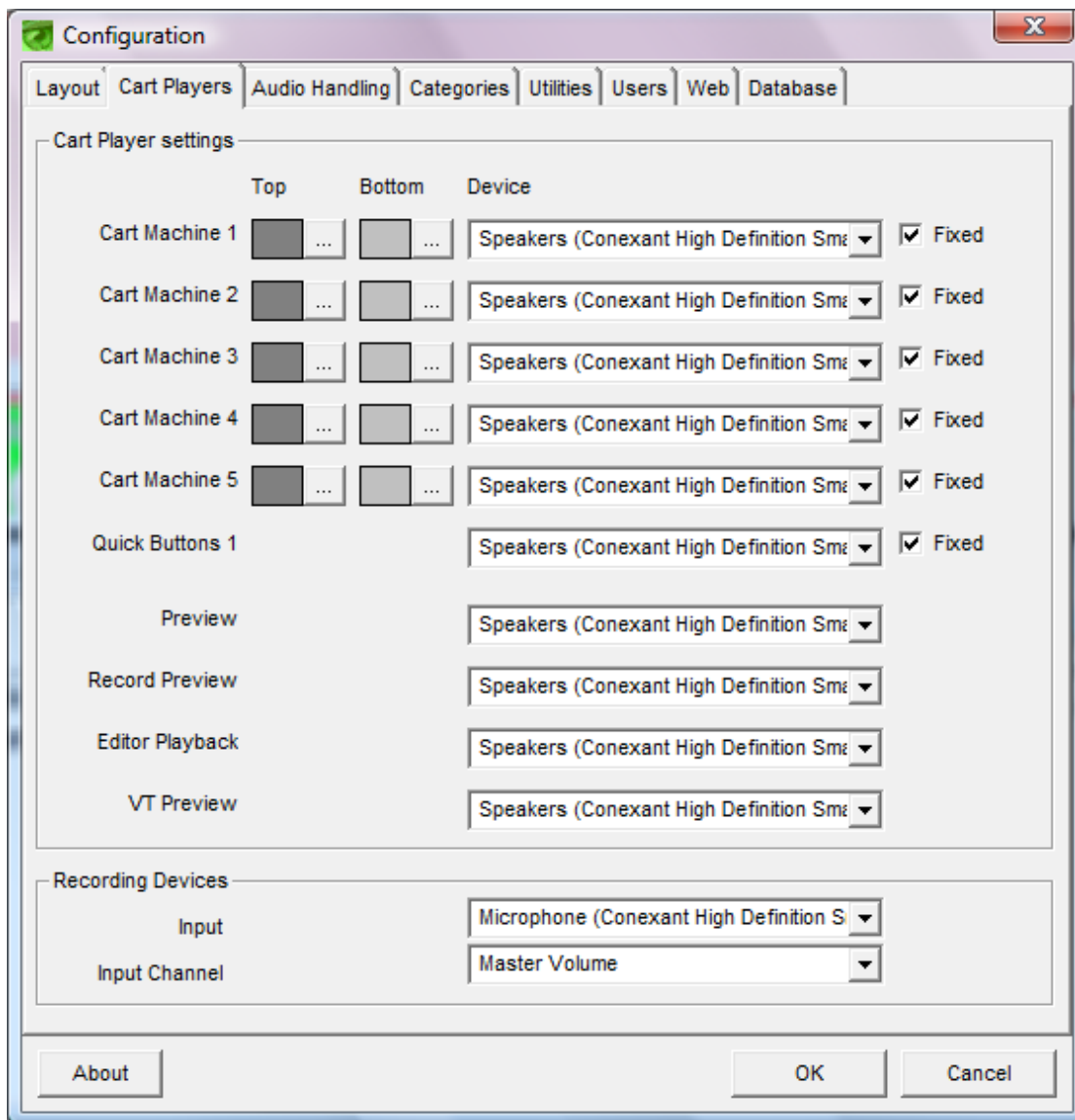
You can also right click a button and delete it (this does not remove any associated audio or CC from the library!) There is also an option to delete all the buttons on the current page or all 400 buttons across all 20 pages.

## SETTINGS

Click the settings button for access to many setup features. Access to this menu is permissions controlled by user. The ABOUT button does exactly what it says on the tin! It gives version and licence information as well as details of support contacts and supplier details. See Fig.1. The first tab is the layout tab (Fig. S1). This has a small number of very basic settings. You can choose to use the Windows default desktop colour or a custom one for the small area of visible background in Autoplus. You can also set the number of previous plays that are displayed in the cart history screen (default is 10).



The second tab is the “Cart Players” tab.



*Fig S2: Cart player settings.*

Here, all players and recorders within the software are detailed and you can select from a drop down list the audio hardware device to be used for each. This list is populated from Windows device manager and so any sound devices listed in WDM/Control panel will be available. Naturally your choice of device will determine how and where audio can be heard. Specifically which faders on your sound console will be used for playback. All settings here will take effect without restarting Autoplus. In the Recording Devices section, not only do you select the device but also which input of the device: e.g. line or mic. This is useful on composite devices.

Beside each cart player are two colour palette selections. Each cart player on screen can be coloured (possibly to match the fader knob colour on your mixer and thus identify which player is on which fader) and further more there can be a colour gradient from the top to the bottom of the player. These palettes choose the top and bottom colours and the gradient is formed automatically. Colour changes will take effect the next time a player is used.

Finally, to the right of each cart player is a “Fixed” tick box. The default is for these to be ticked and this means that the device is permanently assigned to the player. The alternative is

that each player plays to a device specific to the category of audio. E.g. all commercials always play through fader 4 on the mixer irrespective of which player is used on screen.

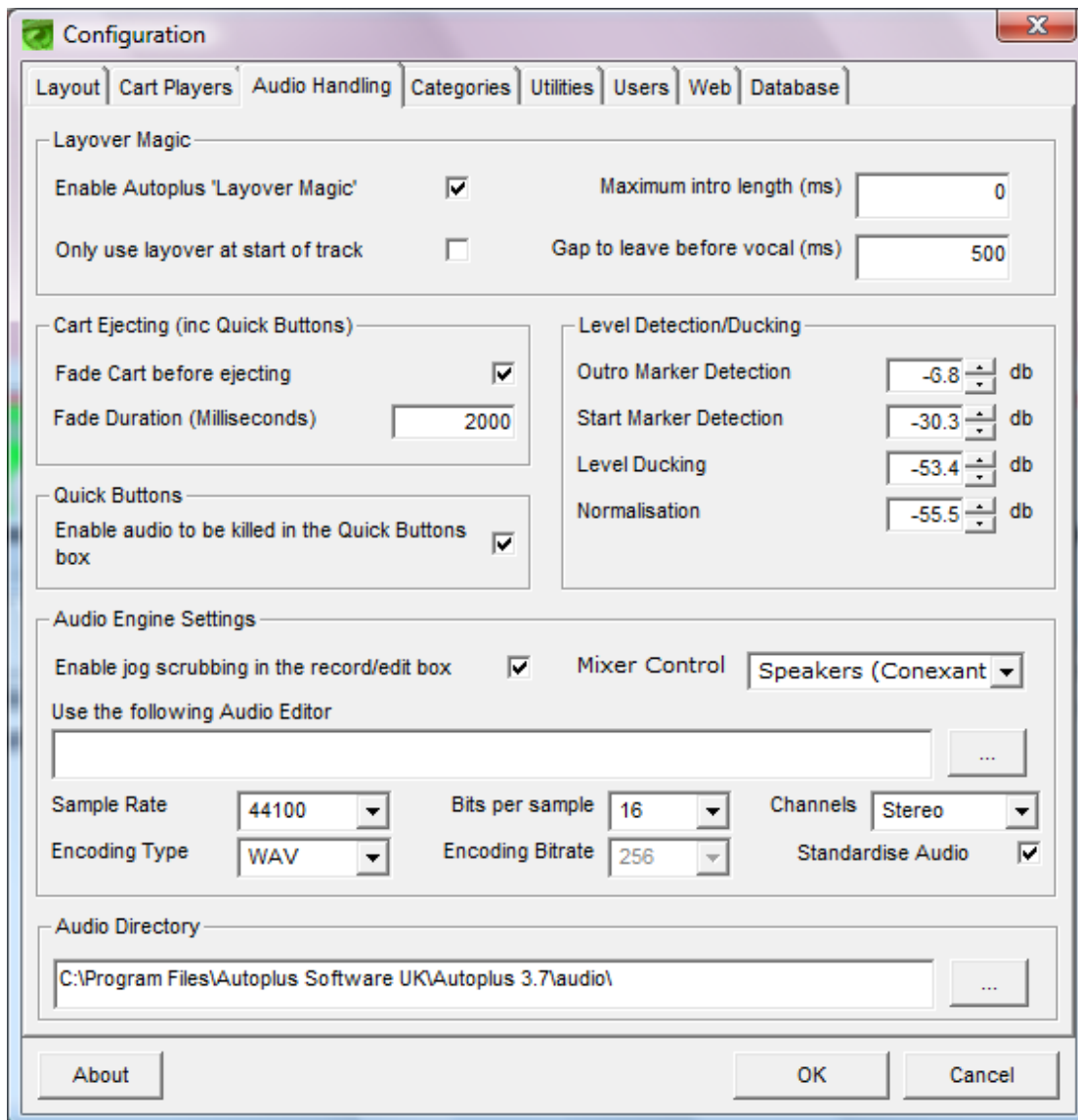


Fig S3: Audio handling tab

The next tab relates to the audio files that the system uses and creates. The first group of settings relates to Layover Magic. These determine the rules to be employed by the system for achieving Layover Magic. The use and operation of this was described earlier in this manual.

The “Other settings” allow you to:

Adjust (in mS) the duration of a fade during playback- i.e. when a mix is performed or a stop button is hit once. This latter only applies if the tick box “Fade cart before ejecting” is ticked and the default cart player mode is set (i.e. not stop/recue mode)

Allow (or not) Jog Scrubbing in the Record/Edit Controller

Select a default application for audio editing. To do this, browse to the executable file using the button to the right of the field or type in the full path to same in the field. If the field is left



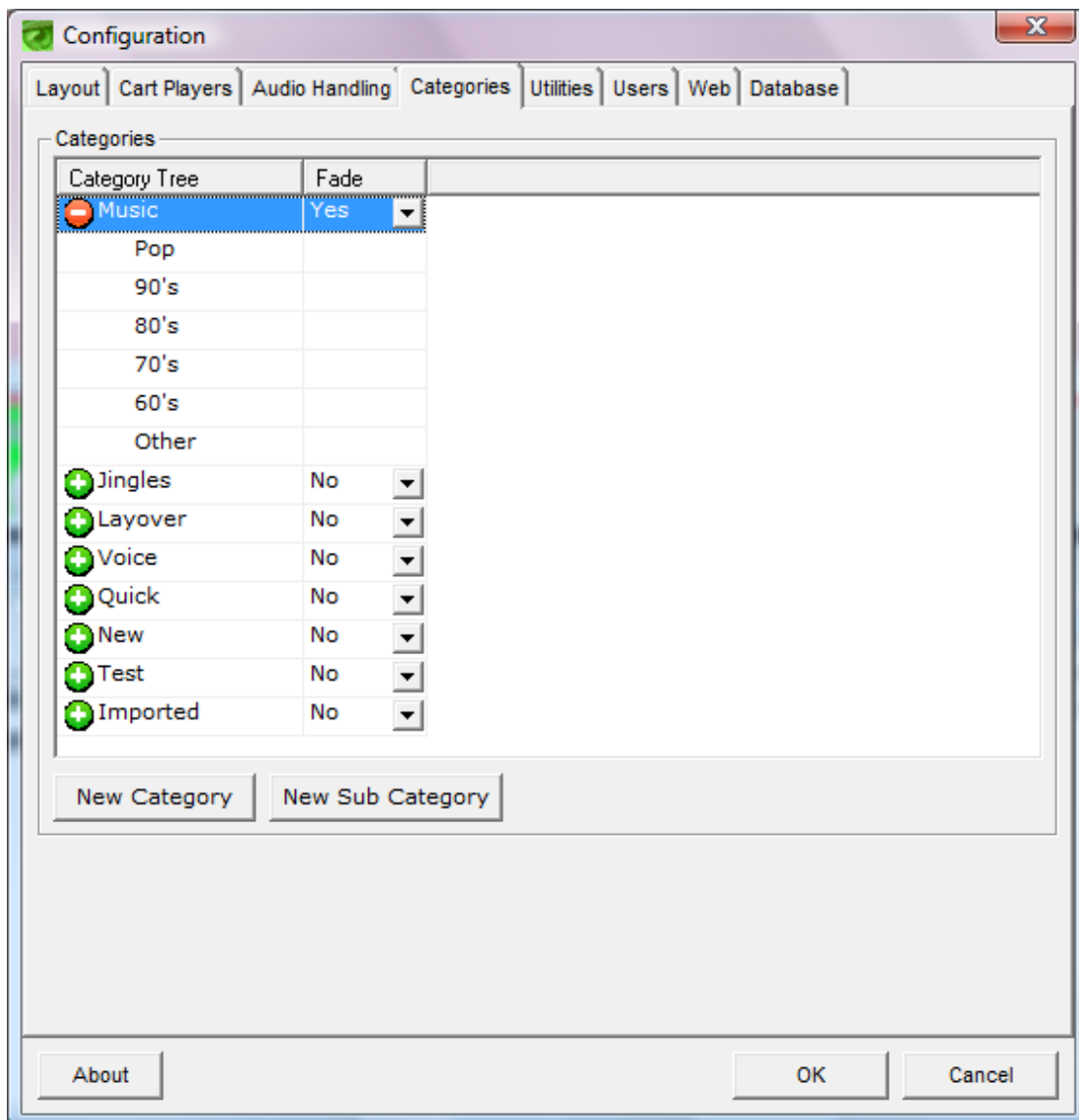
blank and you have purchased the licence for its use, the Autoplus in built editor will be used. In either case, this responds to the EDIT button in the record/Edit Controller.

The next group of settings determine the levels used for automatic marker setting by the system. Autoplus will automatically set the start of audio and outro markers as well as a playback level percentage when it imports or rips audio. These settings determine what thresholds it should use for this purpose. There are then settings for level ducking level (for voice tracking) and normalisation.

The next group of settings relate to the format of the audio that Autoplus produces. Whilst it can playback a variety of formats in any combination (mp3, mp2, wav, Ogg, wma etc) these settings determine what format and settings it will use for all audio that it originates whether from manual recordings, CD ripping or (if the option is enabled for conversion) bulk importing. It is recommended that you maintain an audio library of wav files with a consistent sample rate.

The audio directory setting is fairly self explanatory in that it specifies the primary location for the storage of the audio files used by the system. UNC paths can be typed in this field or you can browse in Windows Explorer using the button to the right of the field. Autoplus can look for audio in (and so you can store it in) multiple locations and these are specified in the setup.ini file. However, the top location in the ini file (which is the one set in the screen above) is where all new audio is stored.

The next tab is the **Categories** tab. This allows you to create and manage the library categories and sub categories within Autoplus 3.7.



This allows you to customise the tree view on the Media Library by adding more audio categories and sub-categories or indeed removing them.

The current media library view is shown in the tab and sub categories can be exposed by clicking the green + icon beside each category. This results in the sub categories being listed and the icon changing to a red – to indicate that the branch is expanded.

If you wish to change the name of an existing category or sub category, you can simply click the entry and overwrite it. You are then warned that this will update the audio database and asked to confirm the action.

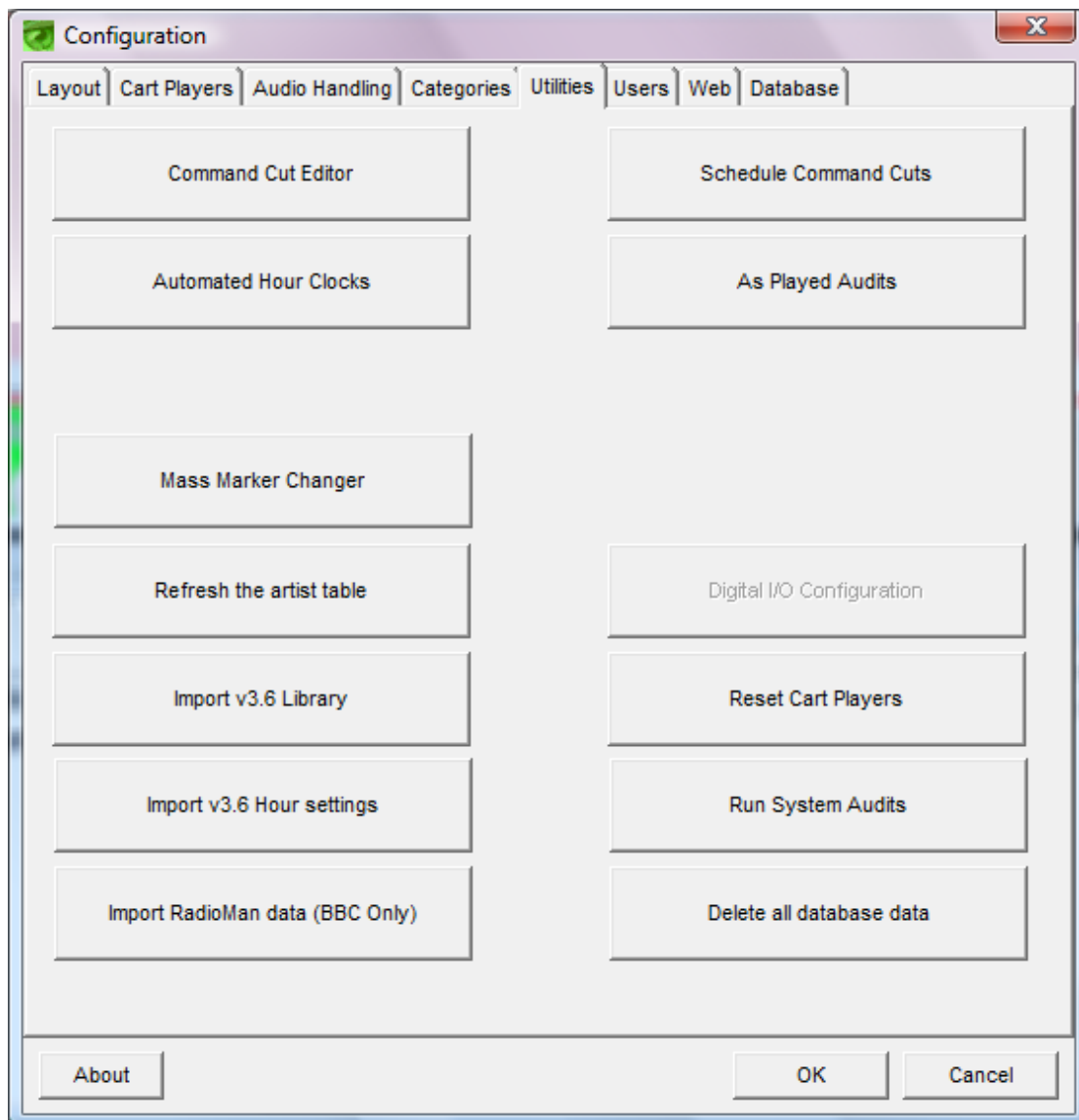
If you wish to add a sub category to an existing category, right click the category and select "Insert sub category". This will insert the sub category as the first one. You can expand the branch and right click in the sub category list to insert a new one at a specific point. Either way a blank row will be inserted and you can click in the name field and type the name for the new sub category.

If you wish to add a whole new category, click the “New Category” button at the bottom left of the screen and it will add a new (blank) category at the bottom of the list. This option is also available on a right click.

For each category, there is an additional setting: The Fade setting determines whether the audio is allowed to be faded during playback- e.g. to achieve back timing or by a manual “Next” command. Music and beds would usually be allowed to fade but commercials or jingles probably shouldn’t be!

## Utilities

The utils tab contains a number of utilities accessed via buttons. Each is described here.



*Fig S4: Utilities tab*

The first two buttons relate to Command Cuts. Command Cuts are the inbuilt macro system which allow functions and/or actions to be initiated in sequences and thus allow powerful controls to be put in place. These Command Cuts are created in the Command Cut Editor and then scheduled via the Schedule Command Cuts button.

The Command Cut Editor screen allows you to edit or create Command Cuts. If you wish to view or edit an existing CC, select it from the drop down list at the top of the screen and its contents will be displayed in the left hand "Command" pane. All of the available commands or Macros are shown in the Macro list in the right hand pane. Highlight any that are required, click the ADD button and the macro will be added to the bottom of the Command pane. You can drag and drop commands in this pane to create your desired order.

To create a new Command Cut, click the New button and type a name for the CC into the dialogue that appears. Then click Save. To add commands to it, select it from the Available

Cuts drop down list and use the Command Builder as described above. Click save to save it and OK to close the screen.

To delete a CC, select it from the Available Cuts list, click Delete and then confirm your action.

When a CC is built, the Total Duration display will indicate the time taken for the whole CC to operate. You can also use the Execute button under the Command pane to test the CC as you build it (obviously ensure that the workstation in question is not live when doing so!)

#### **Available commands:**

**Fade Line In Down:-** This applies only to domestic un balanced sound cards and fades the line input to a mute

**Fade Line in UP:-** Exact opposite of above!

**Activate Queue:-** Starts the queue (equivalent of a NEXT command)

**Add to queue Bot:-** adds a specified cart number to the bottom of the queue

**Add to queue Top:-** adds a specified cart to the top of the queue

**Auto Off:-** turns the “Automate” mode to off.

**Auto on:-** turns the “Automate” mode to On

**Aux in line off:-** This turns off the sound card’s auxiliary input

**Aux in line on:-** This turns on the sound card’s auxiliary input.

**Backup Database:-** Creates a copy of the main mdb file. Creating a Command Cut allows you to schedule this.

**Clear Queue:-** removes anything in the queue. Used after other commands so that you can start with a clean sheet before more commands such as “add to queue” commands or at the end of an automated hour to clear any unplayed audio carts.

**Fade:-** fades whatever is playing over n seconds where n is the fade period specified in settings.

**IP Receive on and Off:-** These commands turn on and off the facility for this workstation to send or receive IP commands to/from an Autoplus server or other Autoplus workstations.

**IP String Send:-** This allows you to enter an IP string and to specify a machine name to send it to along with the TCP/IP port (by default this is 6520). The relevant fields appear when you select this option.

**Load Playlist Hour:-** Will force the playlist for this hour to be loaded but at a scheduled time.

**Local play cart:-** Will play entered cart number.

**Mute line off:-** This switches the line input mute off (no fade)

**Mute line on:-** This switches the line input mute on (no fade)

**Playhalt:-** sets the play mode button beside the queue to play halt mode (play one cart then stop)

**Playthrough:-** sets the play mode button beside the queue to play through mode (keep playing items in the queue one after the other)

**Playto machine:-** allows you to set a cart number and a cart machine number (1-5) to play the cart in.

**Purge Logs:-** This deletes all entries in the Audit logs folder and thus enables you to schedule purges to prevent excessive data build up.

**Purge Playlist Files:-** This is identical to the Purge Logs command above but relates instead to playlists (held in the logs file). This command is only useful if you use playlists that are saved but only used on a specific date and are no longer required beyond then.

**Restart Database Engine:-** This can be scheduled in a CC if required. This may be useful if regular workstation reboots are not practical.

**Record audio:-** Allows you to specify a cart number and duration. Audio will be recorded to the specified cart for the specified duration. This is ideal for capturing a news feed for example.

**Run auto schedule:-** Schedules an automated hour.

**Run Commercial Audit:-** This will export a csv file to a location specified in the setup.ini file, containing the date, time, workstation and cart number, title and artist information of all carts played in the previous 24 hours from the "Commercials" category only. This can then be used as a manual validation of commercial logs or be imported into your traffic software as a reconciliation log.

**Output relay:** This command is only displayed if you have a **GPIO** card fitted and a TINGA enabled Autoplus licence dongle. It allows you to set GPOs to specific states and thus control external logic and devices.

**Start Machine 1 , 2, 3, 4, 5** Starts the specified cart player.

**Start Playlist:-** Will start the playlist as long as it is setup correctly for the date and hour in question (see below)

**Stop Machine 1, 2, 3, 4, 5:-** Stops the specified cart player.

**Switch Automated/Live:-** Will change the mode to either state

**Toggle:-** Will change the Automate state to the opposite

**Wait:-** This inserts a pause between actions in a command cut - useful for creating complex sequences of commands. See our example next for an application.

#### **An example:-**

Let's set up a news opt in to IRN (Independent Radio News in UK). We will assume that we have the IRN feed in via the sound card line input. We also assume we have a 10 second news in jingle and we will use our scheduled timer to start this command cut at 10 seconds before each hour.

From the command list select Fade and then click ADD. Next select Local Play Cart and type in the number of your news in jingle cart, then click ADD. Next select Mute line off from the command list and click ADD. Next select WAIT and enter 120 (seconds for the duration of the news bulletin). Then click ADD. Next select Mute line ON and ADD. Then Local play cart and enter the cart number of your news out jingle. Finally select activate queue, ADD and Playthrough and ADD. To close the command list window click DONE.

To save this command cut click SAVE and if you are finished close the window. If you want to test it you can click the “Execute Cut” button and the whole sequence will operate instantly. There is also a timer that will show the cut duration- the user enters a time here to specify how long the command cut should take when queued or scheduled in a playlist. If you want to remove individual entries in the overall cut, highlight them in the left hand pane and click remove.

### Command Cut Scheduler.

Having created CCs we can either load them from the media library onto Quick Buttons, into the Queue or schedule them. The scheduler is shown below.

Click the Add button and a column will be entered into the form. Type in a time that you wish to schedule a CC, select the CC from the drop down list and then tick each day across the row to indicate on which days you wish this CC to run at the specified time. You can specify the same CC at different times on the same or multiple days.

### Useful notes about Command Cuts:

All CCs are stored in the DATA folder. The path can be set in the setup.ini file and so all workstations’ CCs can be shared by setting a network path. Equally, CCs are stored as individual DAT files and are portable. They can be copied between systems. However, you must update the Commands.dat file (in Notepad) as this lists all available CCs.

Autoplus must be restarted before new CCs are available in the CC scheduler.

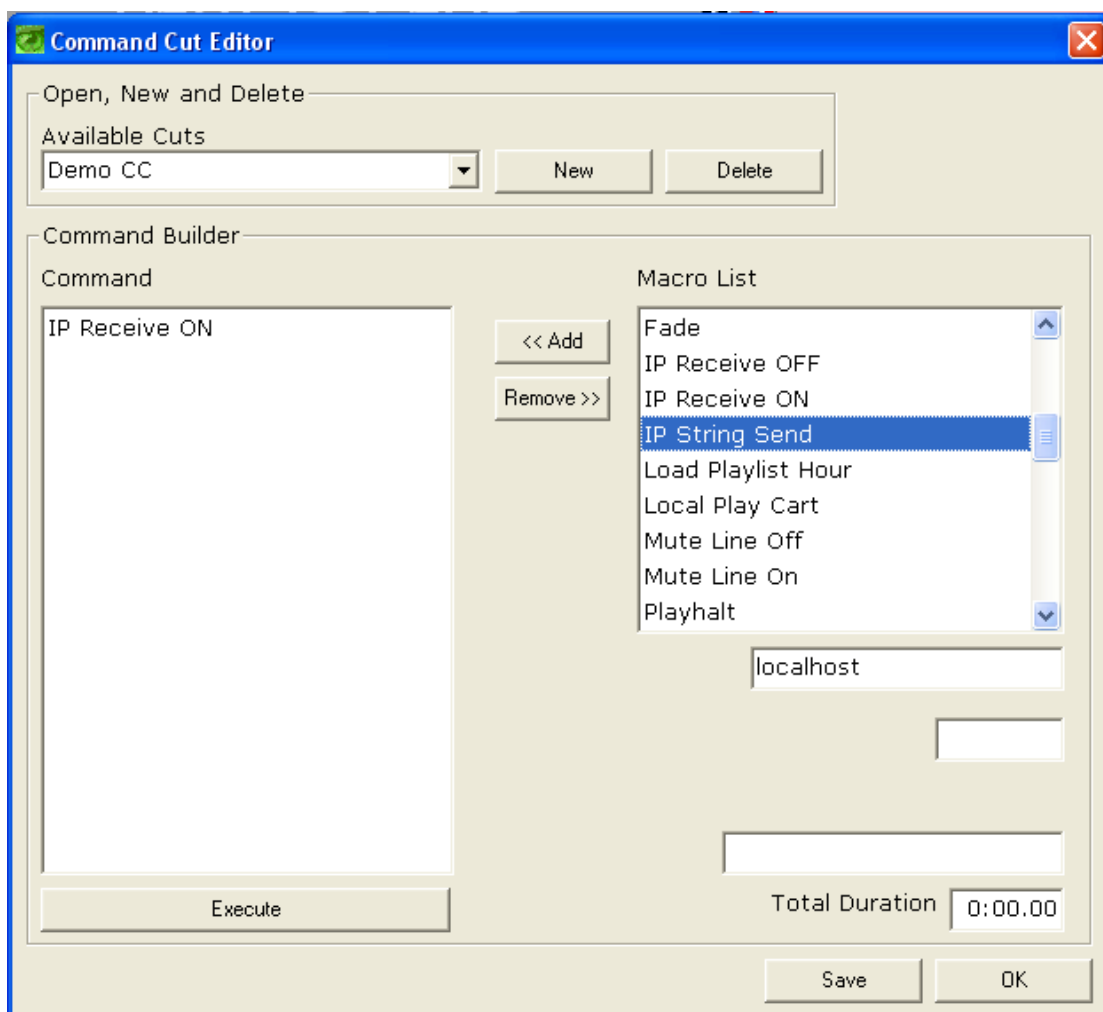


Fig S5 The Command Cut Editor

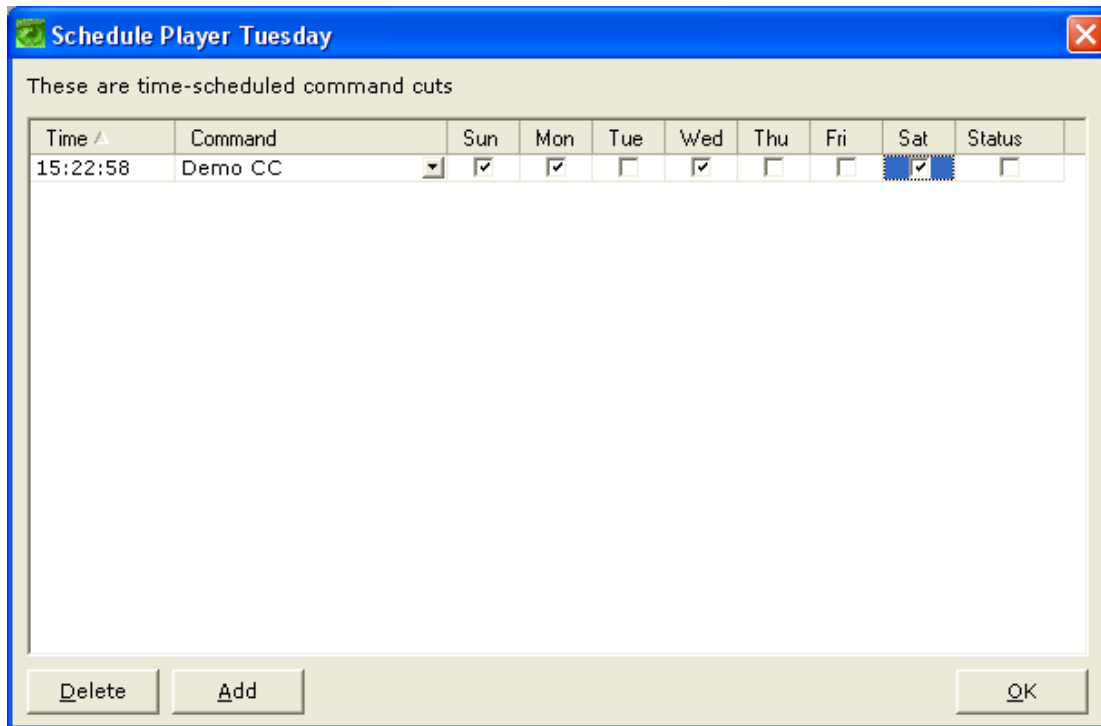


Fig S6 The Command Cut Scheduler screen.

### Mass Marker changer.

If you hit this button, the Autoplus audio engine will analyse all audio files in the database and recreate all the start of audio and outro markers. Depending on the number of files, their duration, format and the speed of your workstation and network this may take a considerable period of time. It may also slow down the operation of other workstations accessing the server and audio store. The only purpose of this utility is that if you have done an import with your threshold levels incorrectly set and you wish to correct the markers or if you have a legacy library (e.g. from an older Autoplus radio product) where the auto marker setting was not carried out.

### Import Radioman data.

This is a utility to allow BBC users to import an audio library from a Jutel Radioman® system.

### As Played Audits.

This screen allows you to display and then export (to csv) the as played audits (based on the criteria specified elsewhere in the system) for a time range within a given date. This may be 1 hour or 24 hours. Simply select the date from the calendar bottom left, highlight the range you wish to export and click Export Selection. A dialogue box (as in Fig.S8) will appear allowing a BBC export to have a programme number inserted for compatability with the SABLE application.



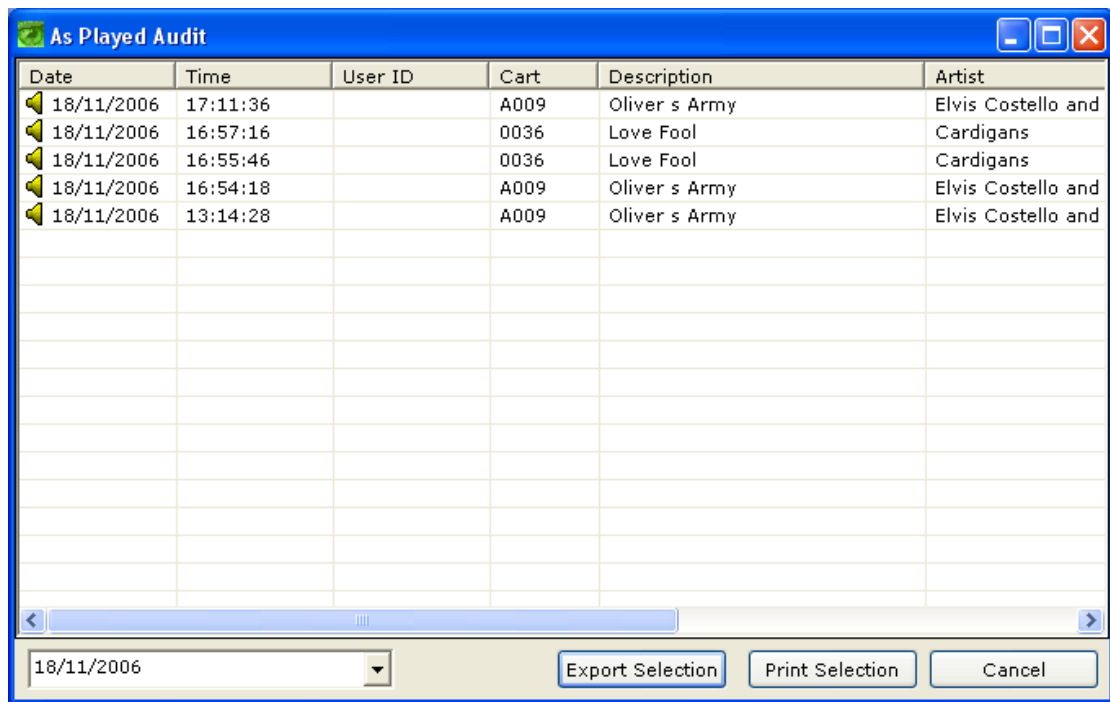


Fig S7. As Played Audit screen.

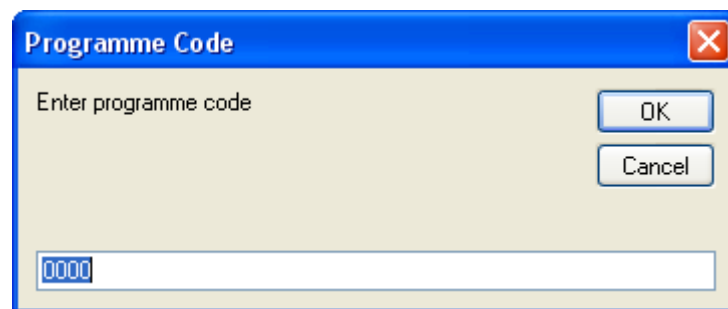


Fig S8. BBC Audit Export

### Run System Audits.

This is a database administration tool. It carries out a number of checks on data fields to ensure validity and corrects any errors such as illegal nulls and characters. In the event of problems with speed in accessing the database (e.g. searches), this would be a useful tool to run to effect a fix.

### Digital IO Configuration (TINGA16).

Westcountry Broadcast offer a PCI card (the TINGA16) which in conjunction with Autoplus software allows the software to interface with the outside world such that Autoplus can control external devices or be controlled by them using GPI contact closures. Examples of the use of this feature include providing fader start of Autoplus cart or set players from your mixer/console or for audit validation.

Pressing the Digital IO configuration button will produce the screen seen below in Fig S9. Select the card using the button top right and then for each input you can assign a command cut to action against it. You can also stipulate separate actions for rising and falling edges of the GPI. Outputs are assigned using Command Cut commands.

The IO configuration button will be greyed if there is no dongle (i.e. in demo mode) or if the dongle is not licenced for TINGA.

**Configure Digital I/Os**

I/O Device  
[nothing] Select Device

Digital Inputs

Input 1	<input type="checkbox"/> Active Low	[nothing] v
Input 2	<input type="checkbox"/> Active Low	[nothing] v
Input 3	<input type="checkbox"/> Active Low	[nothing] v
Input 4	<input type="checkbox"/> Active Low	[nothing] v
Input 5	<input type="checkbox"/> Active Low	[nothing] v
Input 6	<input type="checkbox"/> Active Low	[nothing] v
Input 7	<input type="checkbox"/> Active Low	[nothing] v
Input 8	<input type="checkbox"/> Active Low	[nothing] v
Input 9	<input type="checkbox"/> Active Low	[nothing] v
Input 10	<input type="checkbox"/> Active Low	[nothing] v
Input 11	<input type="checkbox"/> Active Low	[nothing] v
Input 12	<input type="checkbox"/> Active Low	[nothing] v
Input 13	<input type="checkbox"/> Active Low	[nothing] v
Input 14	<input type="checkbox"/> Active Low	[nothing] v
Input 15	<input type="checkbox"/> Active Low	[nothing] v
Input 16	<input type="checkbox"/> Active Low	[nothing] v

Save Cancel

Fig S9 GPIO configuration screen.

## AUTOMATED HOUR CLOCKS

If you click the Automated Hour button the window shown in Fig.S10 will appear. All of the settings in this screen relate to the inbuilt music rotation system actuated by the SCHEDULER button and described earlier. The window has two tabs: Clocks and Clock Assignments. We will deal with these in the logical order of Clocks first. See Fig S 10.

To create a new hour clock, click the New Clock button bottom left. A new tab will be created and you can name it in the field top centre. Using a sensible and clear naming convention will however help you considerably in the future when scheduling.

You now need to add content to the hour. It was described earlier in this guide what options are available for this. Click Add Item and simply a blank row will appear in the main pane of the window. You can repeat this for as many items as you wish to place in your hour clock.

Next, click into one of these blank rows and set for each, the type (each of Audio, Fixed Audio (i.e. a specific cart) and Command Cut) as illustrated in Fig S10. Next set the category and sub category (for audio items) or the cart number (for fixed audio) or Command Cut name (from a drop down list of available CCs). Beside each item an average time will appear. This is purely an indicator. If the time displayed is zero (for audio) it suggests that there is no audio in that sub category! These times are totalled in the Estimated runtime display top right.

When you are happy with your hour pattern, click SAVE in the bottom right hand corner of the window. Also in this tab, you can highlight an item (row) in a clock and delete it with the Delete Item button or delete an entire clock with the Delete Clock button (bottom left of the window)

Automated Hour Setup

Clocks | Clock Assignments

Demo | Overnights

Add Item | Delete Item | Overnights

Estimated Runtime 00:04:07

Type	Category		
Audio	Music	90's	4:06
Audio	Jingles	Presenter	0.15
Fixed Audio	J101		0:08
Command Cut	Demo CC		

New Clock | Delete Clock | Save | OK

Fig.S10. Automated Hour Setup: Clocks tab

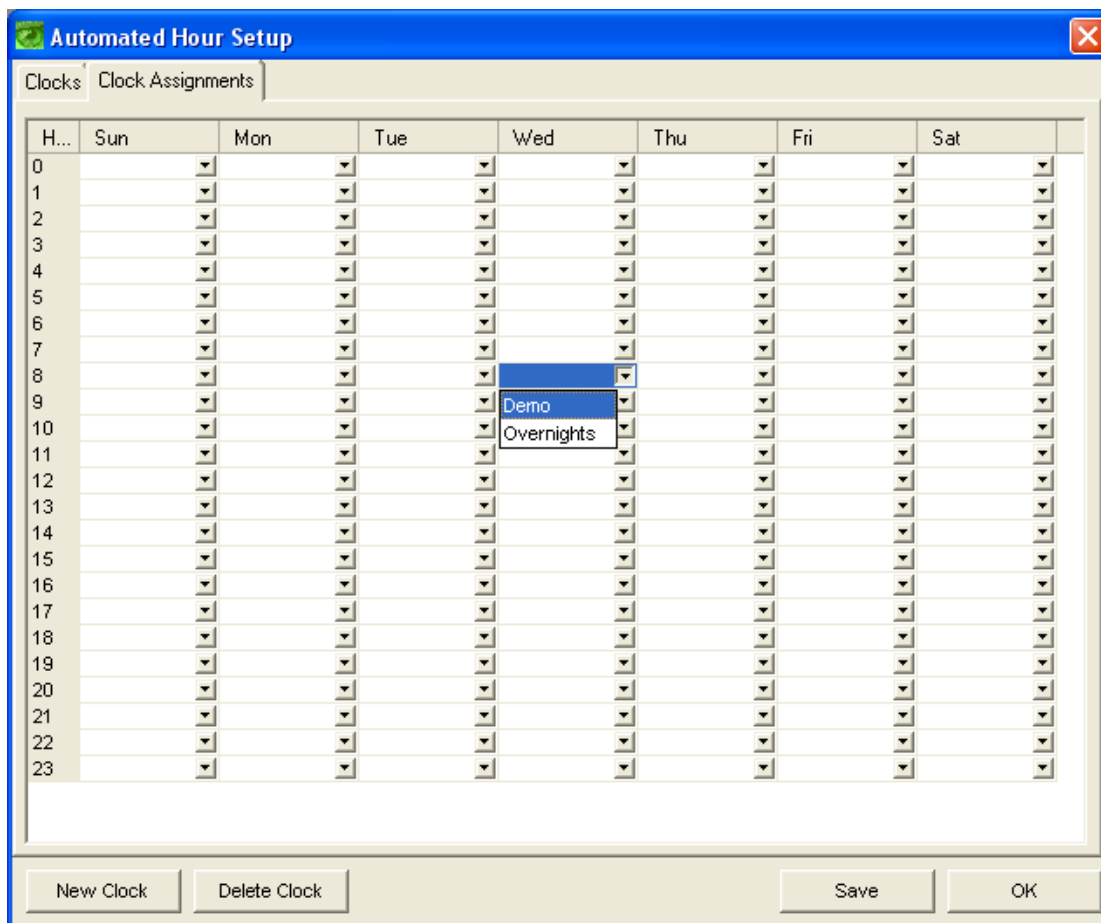


Fig S11 Automated Hour Setup: Clock assignments tab.

If we now switch tabs to the Clock Assignments (see Fig S11) we see a grid of 7 days, each with 24 hours. For each hour there is a drop down list and this contains each of the Clocks that we have created. We can thus choose one to assign to each hour of each day. Clocks can be used as often as you wish. If you double click the hour a separate window will appear in which you set whether the hour is a Live Assist or Automated hour and where the system should get filler audio from (category and sub category). When these are set, again click save. Autoplus needs to be restarted for these settings to take effect.

#### Refresh the artist table:-

This button causes Autoplus to delete the artist table in its database and then recreate it by scanning the audio database.

#### Import v 3.6 Library:-

For users upgrading from Autoplus 3.6, this utility will import their existing access database into whichever database format is used in 3.7. This process can be run multiple times.

#### Import v3.6 Hour settings:-

This utility allows users upgrading from Autoplus 3.6 to import all of their hour patterns assignments into v3.7. This process can be repeated multiple times. The actual hour patterns which in v3.6 were held in the registry (as opposed to the data folder in v3.7) are imported the first time you enter the Automated Hour clocks screen (see above). A dialogue will advise that v3.6 clocks have been

detected and ask you if you want to import them. If you do they will be added to the two default clocks. This is a once only process although if necessary, it can be recreated by deleting a key in the registry:- refer to our support department for advice if you need to do this.

Note that imported hour clocks may show blank categories or sub categories if these exist in v3.6 but not in v 3.7. They should be added in v 3.7 otherwise these items cannot be scheduled.

Neither of the v3.6 imports is destructive and v3.6 can continue to be used on the same PC if desired.

### **Delete database data**

Obviously this is a potentially disastrous utility! It is designed for situations where you need to start again and all due warnings are given when you try to use it.

### **Reset cart players**

If a cart player or players seem to have malfunctioned (not responding or ejecting for example), this button will reset them without having to restart the application.

## USER LOGONS

The next tab in the settings screen is the Users tab. Autoplus contains a user logon feature accessed via the LOGON button in the tool bar. The logon customises the Quick Buttons, screen layout and permissions per user. The next tab in the settings screen is the users tab. Here we can create user profiles, set their rights/permissions and edit them. Audio playback is not interrupted by logging in or out.

The screen is largely self explanatory. Select a user from the list and highlight it. Tick appropriate permissions in the Security Settings list and then click the save button (disc icon, the right hand most of the three buttons). In the same process the password can be set or changed.

To delete a user, select them in the list and click the delete button (red cross) and confirm your action.

To create a new user, click the New button (left most button), type in a username and click Ok. You will then be asked to enter a password and again click OK. The new username will then appear in the user list and can be highlighted to set permissions.

Finally, a user can be selected as a default user (by clicking the Set Default User button). This means that whenever APTV starts or when anyone hits the Logout button, this user profile will be loaded. Therefore it is recommended to create a user with minimal privileges for this purpose. Please note that full access is NOT when all boxes are ticked as in Fig S12. The third column consists of "Disables" and so for full access these must be un-ticked. Also, if you logout to the default presenter during periods of automation, the "Disable Queue Add" option MUST NOT BE TICKED.

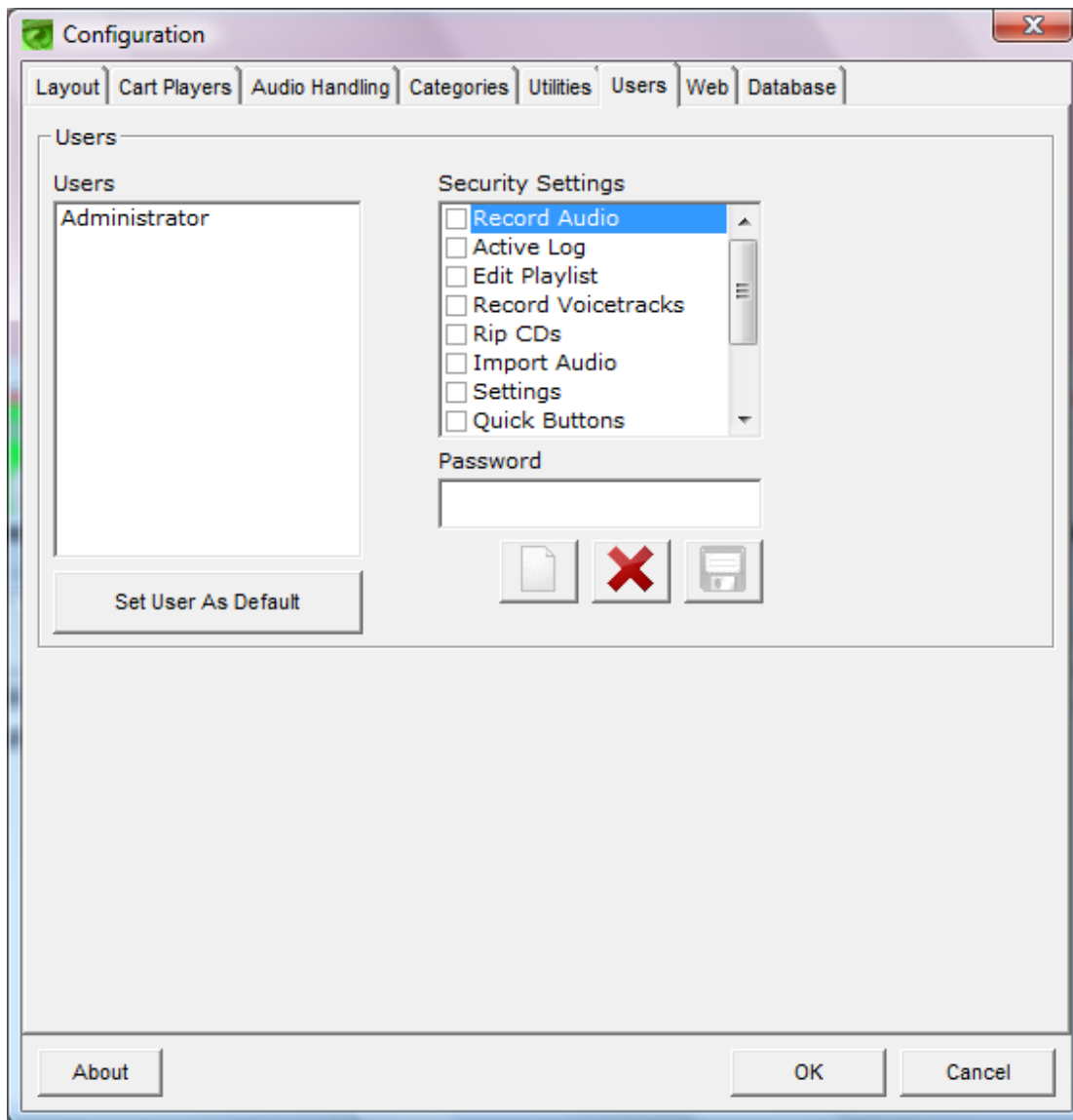
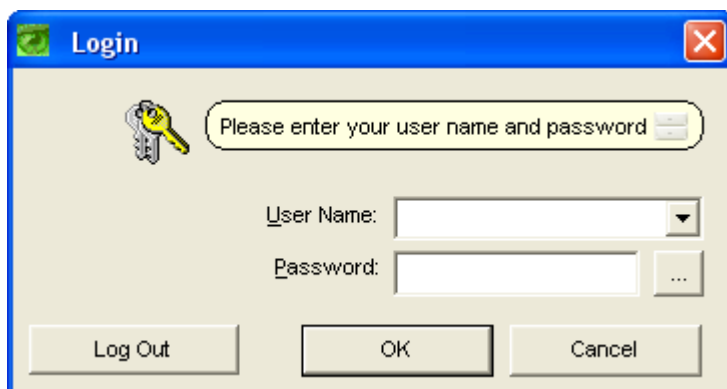
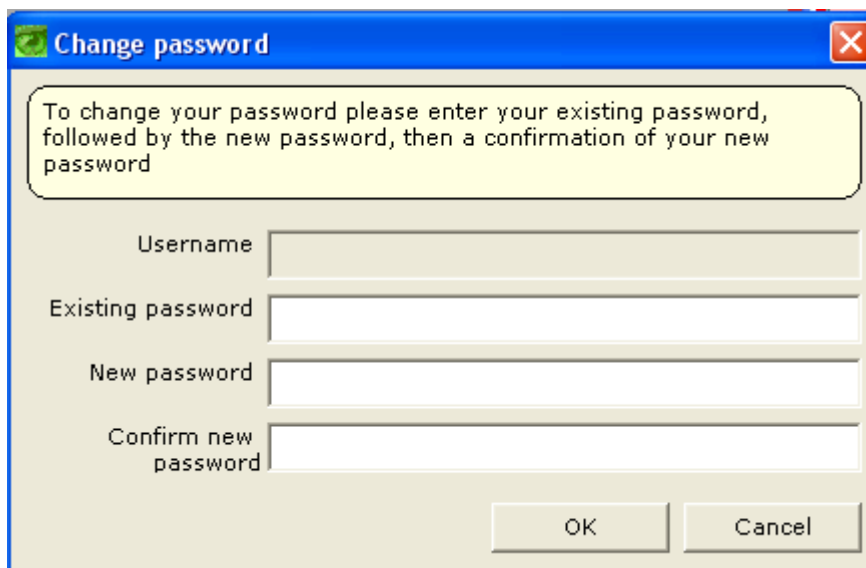


Fig.S12: Users tab.

When clicking the LOGON button on the main screen you get a standard user login box as in Fig.29. Also use this to logout and return to the null or default user. Clicking the “...” button beside the password will take you into the change password screen (Fig.30) where a user can manage their passwords without having access to the main settings screen.



*Fig L1. Logon box*



A screenshot of a Windows-style dialog box titled "Change password". The dialog has a blue title bar with a green icon on the left and a red close button on the right. Inside, a yellow instruction box says: "To change your password please enter your existing password, followed by the new password, then a confirmation of your new password". Below this are four text input fields labeled "Username", "Existing password", "New password", and "Confirm new password". At the bottom right are "OK" and "Cancel" buttons.

**Change password**

To change your password please enter your existing password, followed by the new password, then a confirmation of your new password

Username

Existing password

New password

Confirm new password

OK Cancel

*Fig L2: Change user password screen.*



## Web

The next tab on the configuration screen is “**Web**” (Fig.S13). The features here are for web integration of Autoplus and sets the paths for formatted data output to allow the system to keep a live data feed of what is playing, what is coming next. It also displays information that has been saved as cart text but if none is present then (or the next audio is not music- e.g. a jingle or commercial) it displays the backup text specified at the bottom of the page. There is HTML and XML support. If the specified html files cannot be found then no output file is created. When a segue occurs in Autoplus (automated or manual) an HTML template can be parsed and saved.

Autoplus supports the following tags - just insert them into the HTML code where you want the current information to be inserted.

%Artist NOW%

%Artist NEXT%

%Title NOW%

%Title NEXT%

%Fact NOW% (takes the cart information as entered in the record box OR uses default station txt) %Fact NEXT%

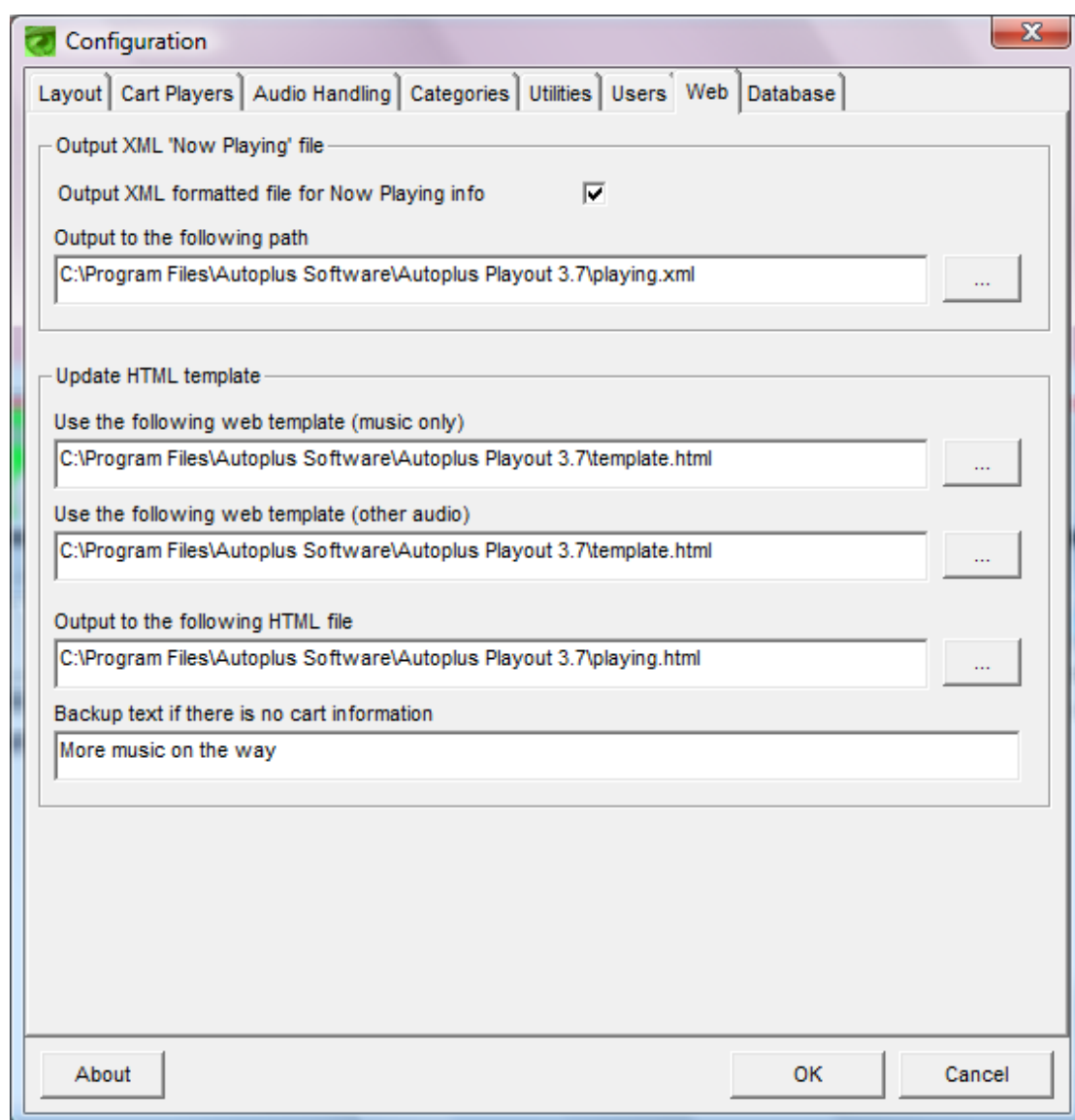


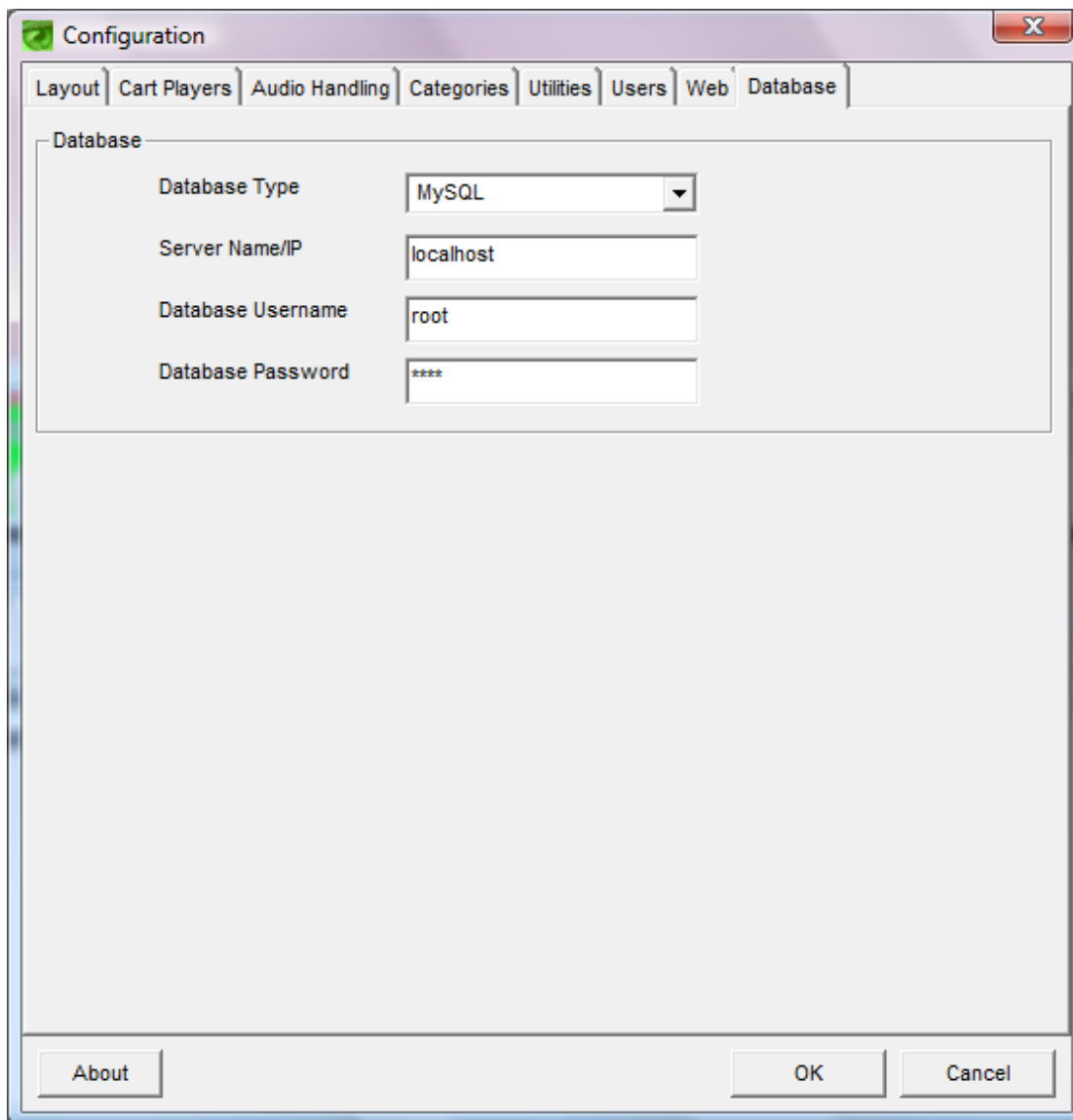
Fig S13. Web settings tab.

## The standard html template is coded thus:-

```
<html> <head>

    <meta name="GENERATOR" content="Autoplus Broadcast Software">
    <meta HTTP-EQUIV="REFRESH" CONTENT="20">
    <title>Now Playing Information</title>
</head>
<font face="Verdana" size="2">
<script language="JavaScript1.2">
var fcontent=new Array()
fcontent[0]="<strong>Now Playing: </strong>%Title NOW% - %Artist NOW%"
fcontent[1]="%Fact NOW%"
fcontent[2]="<strong>Coming Next: </strong>%Title NEXT% -%Artist NOW%"
begintag="
closetag="
var delay=5000 //set delay between message change (in milliseconds)
var fwidth='600px' //set scroller width
var fheight='30px' //set scroller height
var fadescheme=0 //set 0 to fade text color from (white to black), 1 for (black to white)
var fadelinks=1 //should links inside scroller content also fade like text? 0 for no, 1 for yes.
var hex=(fadescheme==0)? 255 : 0
var startcolor=(fadescheme==0)? "rgb(255,255,255)" : "rgb(0,0,0)"
var endcolor=(fadescheme==0)? "rgb(0,0,0)" : "rgb(255,255,255)"
var ie4=document.all&&!document.getElementById
var ns4=document.layers
var DOM2=document.getElementById
var faderdelay=0
var index=0
if (DOM2)
faderdelay=2500
//function to change content
function changecontent(){
if (index>=fcontent.length)
index=0
if (DOM2){
document.getElementById("fscroller").style.color=startcolor
document.getElementById("fscroller").innerHTML=begintag+fcontent[index]+closetag
linksobj=document.getElementById("fscroller").getElementsByTagName("A")
if (fadelinks)
linkcolorchange(linksobj)
colorfade()
}
else if (ie4)
document.all.fscroller.innerHTML=begintag+fcontent[index]+closetag
else if (ns4){
document.fscrollerns.document.fscrollerns_sub.document.write(begintag+fcontent[index]+closetag)
document.fscrollerns.document.fscrollerns_sub.document.close()
}
index++
setTimeout("changecontent()",delay+faderdelay)
}
frame=20;
function linkcolorchange(obj){
if (obj.length>0){
for (i=0;i<obj.length;i++){
obj[i].style.color="rgb("+hex+", "+hex+", "+hex+")"
}
}
function colorfade() {
// 20 frames fading process
if(frame>0) {
hex=(fadescheme==0)? hex-12 : hex+12 // increase or decrease color value depd on fadescheme
document.getElementById("fscroller").style.color="rgb("+hex+", "+hex+", "+hex+")"; // Set color value.
if (fadelinks)
linkcolorchange(linksobj)
frame--;
setTimeout("colorfade()",20);
}
else{
document.getElementById("fscroller").style.color=endcolor;
frame=20;
hex=(fadescheme==0)? 255 : 0
}
}
if (ie4||DOM2)
document.write('<div id="fscroller" style="width:'+fwidth+';height:'+fheight+';padding:2px"></div>')
window.onload=changecontent
</script> </HTML>
```

## Database tab



The screenshot shows a 'Configuration' window with a tabbed interface. The 'Database' tab is selected, showing fields for 'Database Type' (MySQL), 'Server Name/IP' (localhost), 'Database Username' (root), and 'Database Password' (masked with \*\*\*\*). The window also has 'About', 'OK', and 'Cancel' buttons at the bottom.

Field	Value
Database Type	MySQL
Server Name/IP	localhost
Database Username	root
Database Password	****

The final tab in the settings screen is the database tab which allows you to set which type of database is in use and which specific one by name or path. From the drop down list select Access (mdb), MSSQL (which can be SQL Server or MSDE) or MySQL. When selecting either SQL option, the server name and username and password fields become available. The server field may be populated with a name or IP address assuming name resolution is present on the network.

If using a SQL database server on the local machine then the default names will be:

MSSQL: (local)

MySQL: localhost

## Settings general

The entire settings screen can be closed accepting changes with the OK button. Conversely can be closed abandoning unsaved changes with the Cancel button. The About button will display version details about the program.

## PLAYLIST FUNCTIONALITY (Active Log)

Whatever form of playlist log is used, the management screen is the Active Log. The system can run a playlist from most commercial playlist software systems. For specific advice please email [autoplus@westcountrybs.co.uk](mailto:autoplus@westcountrybs.co.uk). As we saw earlier, we can also generate a log from the inbuilt scheduler clocks. You can create your own basic playlist files using the Active Log interface screen. Either way the playlist when in operation will simply load into the queue.

Autoplus comes complete with the ability to import an ASCII file containing playlist data. There should be one playlist file for each day. The file format can be .asc or .txt.

Playlist files can contain a number of audio and non-audio events. Non-audio events include items such as Command Cuts and Time Markers:-

- Command Cut
- Timed Command Cut
- Log Text
- Time Marker
- Exact Time Marker

Autoplus can import as much or as little information from the ascii file as you require, i.e. if you include title and artist data within the ascii file this can be imported. If you don't include title and artist data Autoplus looks this information up from its own database while importing the playlist.

### Import Fields

Cart Number	String	Up to 6 characters	
Start Time	Time	Formatted as hh:mm:ss	
Title	String	Up to 40 characters	(optional)
Artist	String	Up to 40 characters	(optional)
Directive	String	1 character	(optional)

### Audio

Directive = "" (no directive required)

### Command Cut

Directive = "+"

### Timed Command Cut

Directive = "~"

### Log Text

Directive = "T"

### **Time Marker**

Directive = "I"

### **Exact Time Marker**

Directive = "E"

### **Time Markers**

It is good practice to include either a Time Marker or an Exact Time Marker at the start of each hour. This makes it clear as to exactly which events are in which hour. Time Markers are displayed in the playlist visually divide each hour into segments. Exact Time Markers do the same, however the events after the Exact Time Marker will play at the given time. This can be useful in an automated environment to ensure that the playlist keeps on-track (top of hours, news/legal ID's, etc)

Access to the playlist is based on user permissions. You can create a new playlist by simply dragging and dropping carts into a blank Active Log and then clicking Save whereupon you will be asked for a filename. The format of the filename must match that set in the setup.ini file which by default will be ddmmyy. The file saved will be in the xml data format and will be in the logs folder.

However an Active Log has been generated, there are a number of things that can be done to it in the AL screen. See Fig AL1. The log is shown in the main screen area and some controls are available as buttons across the bottom of the screen and as right click options. Each row is similar to the display in the queue in that the cart or event details are shown with the same icon as in the queue. The time displayed on the left hand side is the predicted play time for the event. This will be updated when it is actually played. This is discussed in more detail below.

The Insert Voice Track button will be discussed below. Beside this we have the Insert Other button with the options as shown in the picture. These are:

**Time Marker:** This is a marker placed in the log as an advisory. It indicates the expected progress of the log.

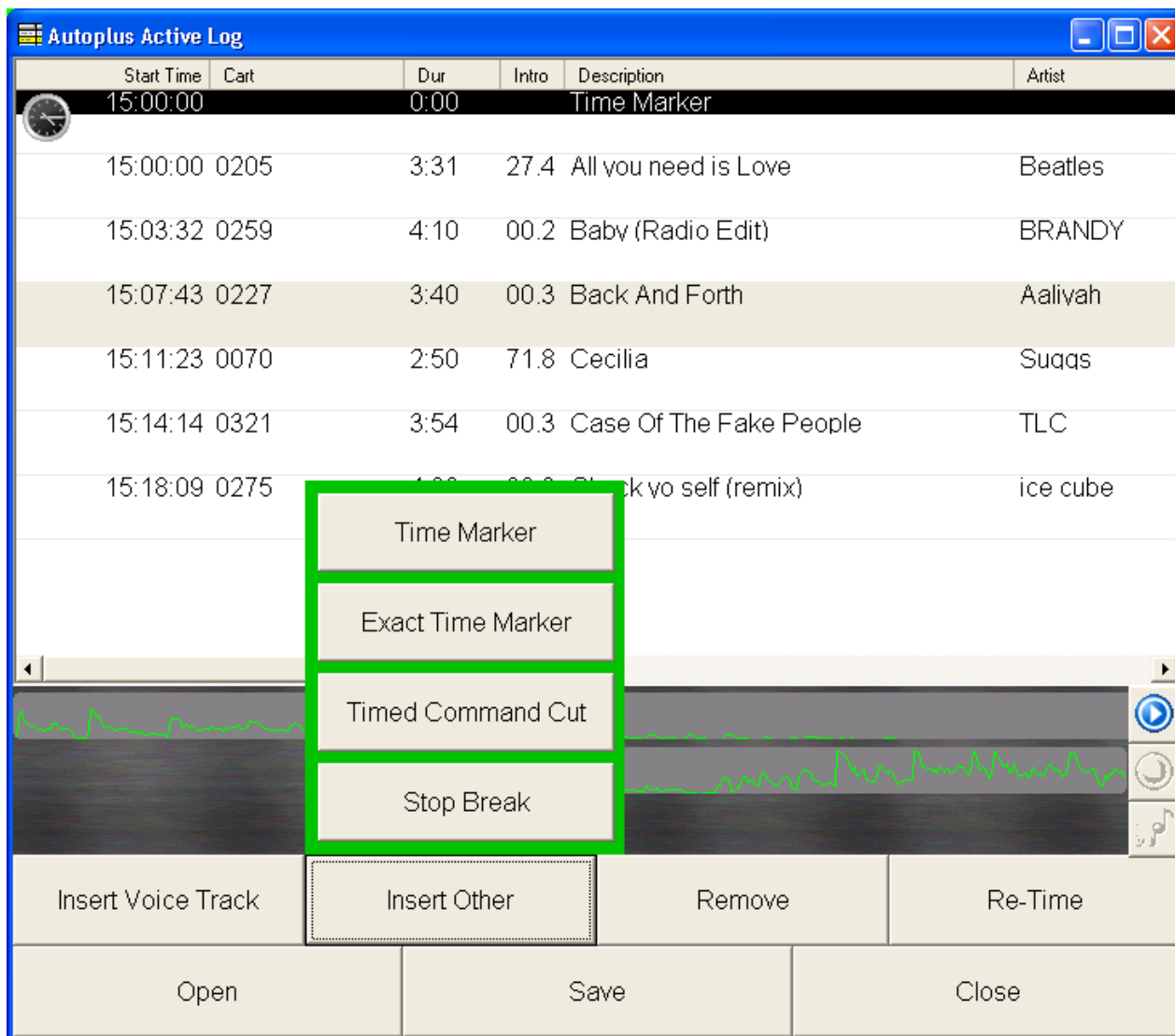
**Exact Time Marker:** This marker enforces the time markers. In other words, if a log has events between its current position and an exact time marker that is about to be current, it will skip the unplayed events and move to the Exact Time Marker at the exact time. This is an ideal way to ensure that logs maintain a schedule.

**Timed Command Cut:** This has the same effect as the CC scheduler discussed earlier but allows the event to be set within a log.

**Stop Break:** This is exactly the same as a Stop Break in the queue.

The REMOVE button does as you would expect! Highlight an event in the log, click remove and once the action is confirmed, the item will be removed.

The RETIME button can be clicked at any time and will run through the log and re-calculate all of the event start times based on any changes you have made. This is actually unnecessary in most circumstances as any changes made to the log (insertions, removals etc) result in an automatic retime anyway.



*Fig AL1 Active Log screen with Other options shown.*

The final three buttons relate to normal file options for the log files: open, Save and close.

Most of the right click options are simply replications of the buttons shown above. However, there is one additional option:

The “List cached items” button will show a dialog box containing any timed items in the log. Autoplus holds a cached list of precise times contained within the opened active log. These are the times that Autoplus is expected to do things (like Exact Time Markers, Timed Command Cuts, etc). At the end of each item there is a “f: 0” or “f: 1”. This is the bit status of the event – 1 being that the item has successfully fired, 0 meaning the time hasn’t been reached or there was a problem.

## Segue Editor.

Between the log detail and the buttons, there is a waveform display. When you click a cart in the log, the waveform display displays its outro and the start of the next track. If an intro is set on the next track, this section of the waveform is yellow whereas the rest is green. The AL will use the time markers set in the database for each track by default but it is possible using by the segue editor to change the timings for this one event only- i.e. it does not change the settings in the database for future use. If you wish to preview a segue before changing anything (or indeed after a change), there is a play button to the right of the waveform display. (Where this is heard will depend on the sound device setting you have assigned in the cart players tab of the settings screen:- see above).

Also present in this area are a stop button (to stop the preview playback) and a save button which will save the new segue position. If you wish to adjust the segue, you simply drag the second waveform with respect to the first. Dragging it to the left will result in the second track starting earlier and to the right it will start later. The waveforms will indicate if you are introducing a silence between them.

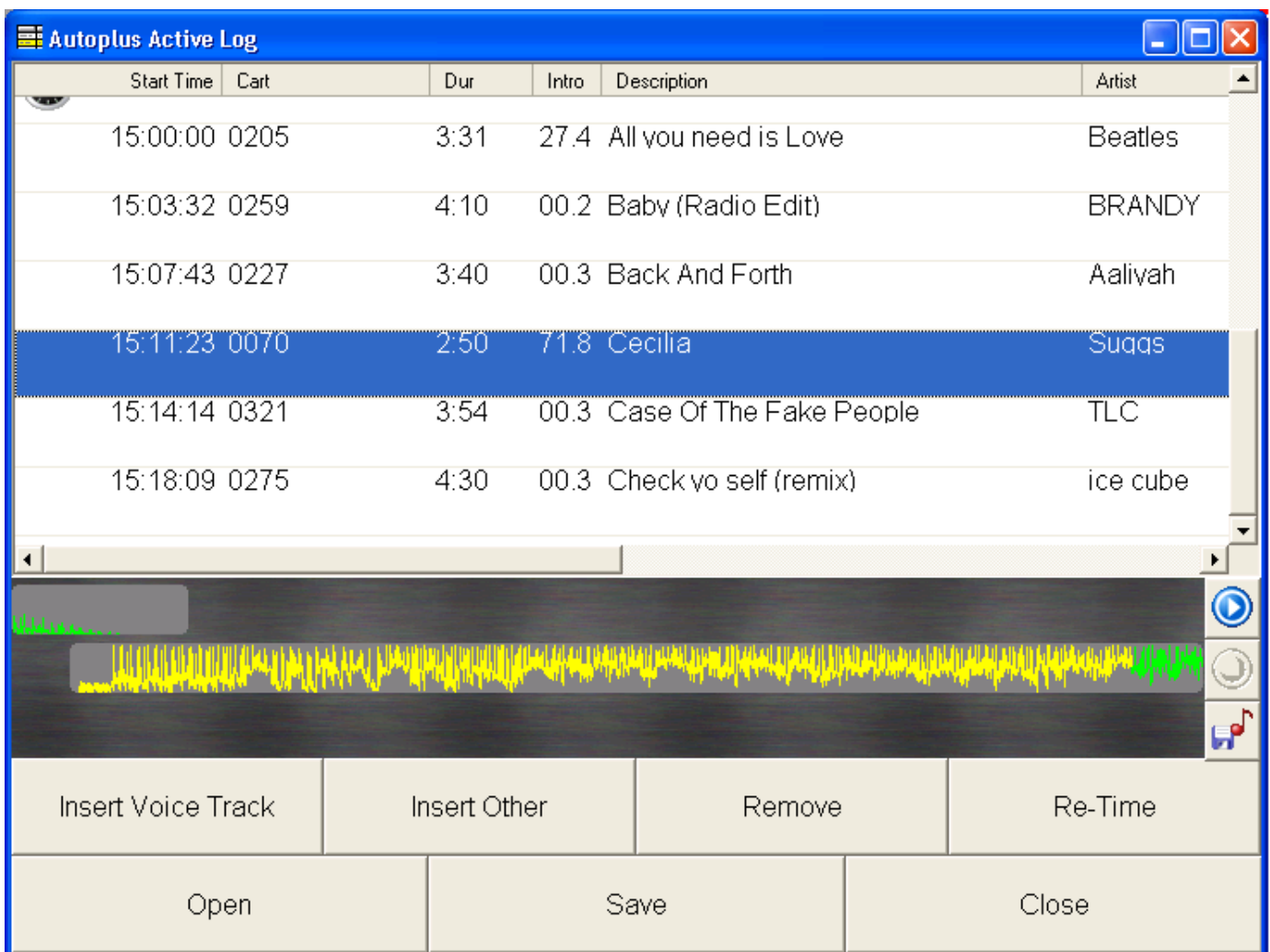


Fig AL2: Segue Editor in Active Log



## Voice Tracking.

Voice tracking provides the ability to add presenter links into a list of audio in advance of playout/transmission without having to play the audio in real time. Therefore a show can be quickly compiled and played out with a “live” feel. VT’s can be done at any time prior to transmission and so it is possible to VT a show whilst other parts of the same log are live on air- even earlier parts of the same show. This assumes that your studio installation facilitates this (i.e. has a separate TX and Aux or record bus on the sound mixer).

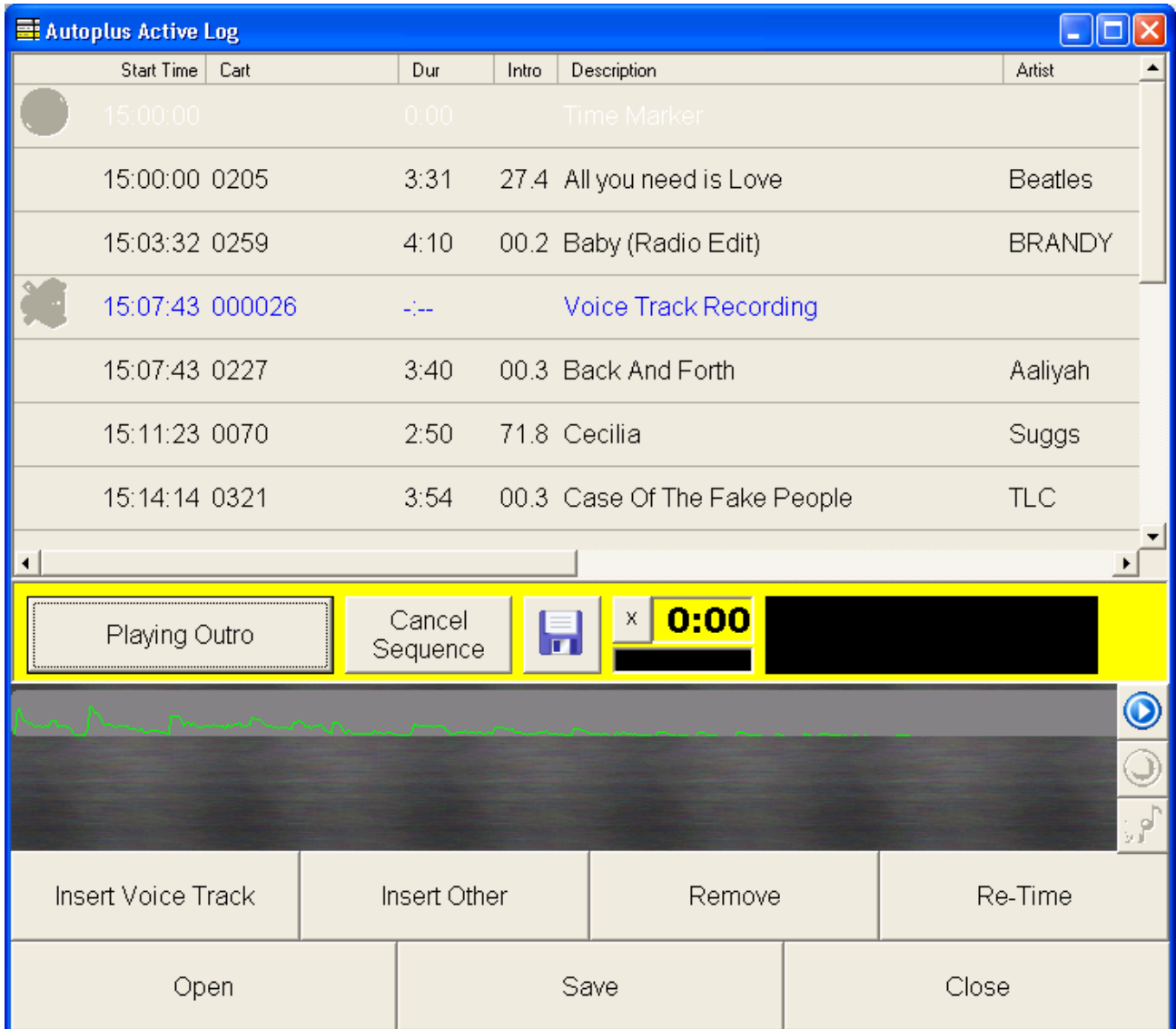


Fig AL3: Voice tracking in Active Log

To Insert a VT, click the first track. The waveform display will show the segue between it and the next track. Hit the Record Voice Track button and a VT will be inserted between the two tracks. Do not be concerned if after a short time the red cross icon appears beside it- like the Queue, Active Log periodically refreshes the status of the audio files and it will thus detect that no audio exists for this VT at this stage. This will refresh again later when the VT is recorded. Also, a new tool bar will appear above the waveform display. The first button on the left will display “Insert Voice Track”. Click this when you are ready and the outro of the first track will play whilst you speak your link. In the tool bar a level meter will confirm your input. When the outro is complete the button will change to display “Start Next Track”. You will be advised from the log what the intro length is and so you

can hit this button when you are ready and the next item will start to play and the same button will now change to "Stop Recording". When you have finished your link click it again.

At any point you can Cancel or Save (button with disc icon) the operation.

We can now fine tune the voice track. You will note that a third waveform has appeared between the two tracks. This is your VT. As before, you can adjust your VT and the intro to the second track with respect to each other and the outro of the first track by simply dragging the waveform. To the right of the waveforms, you have the same play, stop and save buttons to enable you to preview the VT and save it. You can also re-record the VT using the same procedure as above. The Record button becomes active again after a save.

There are a number of settings for the Voice Tracking feature held in the setup.ini file in the Autoplus program folder:

```
[Voice Tracker]
Target Level=100
Quiet Level=10
AGC Rate=1
AGC Input Amp PC (no amplification is 100, double the input volume is 200)=150
```

#### **How to use these settings:**

##### **Target Level**

The target level expressed in percentage. 100 would be full volume.

##### **Quiet Level**

The quiet threshold expressed in percentage.

##### **AGC Rate**

The amplification adjustment rate, expressed in percentage.

##### **AGC Input Amp PC**

The input gain before the AGC. For quiet inputs (i.e. microphone or line inputs) which need boosting this can be increased to a high value (up to approx 1000%). Anything higher than 200% should be looked at because it's likely to be a volume issue into the sound card.

## **How the Active Log works:**

We have discussed how we might have generated a log file (external scheduler which has been imported, inbuilt scheduler or manually compiled). A music manager can open these log files, modify them and save them using the standard file buttons discussed above. Similarly a presenter can access a log file and voice track it in the same manner.

What actually happens “on the day” however is this: Just before midnight, the system looks at the specified location (by default the logs folder) and determines if (based on the preset log file name format which by default is ddmmyy) there is a log file for the forthcoming day. If there is and if the workstation concerned has its autoloading playlist option turned on in setup.ini, it will load the entire day’s log file into the Active Log screen. At midnight it will then load hour 0 (i.e. midnight to 1am) into the queue and as long as the workstation is in Automation mode and the queue in playthrough mode, it will play the content. If there is nothing in the log for this hour it will not load anything into the queue but wait until the next hour and repeat the process.

As each item plays from the queue, the exact play time is updated in the Active Log screen and items which before they were played were shown in white will be blue (played) or green (current item playing). Any changes to order in the queue (during a live assist show) will be reflected back to the Active Log screen.

## **Problem solving:**

If Active Log does not operate as you expect, there are a number of possible reasons why.

1, Active Log does not load the expected playlist at midnight: Ensure that the filename for the log is correct (i.e. the correct date)

2, Active Log does not load audio into the queue every hour: Ensure that all hours have audio scheduled in the log- check for time markers each hour.

3, Active Log does not load any music to queue at any time or day: Ensure that the filename is correct and that the date format matches the format in your setup.ini file. Also ensure that the “Autoload” option in the playlist section of setup.ini is set to =1. On a network install it is important that only the machine(s) playing out the log are set to autoload it. Any other machine on the network can (subject to user permissions) manually open a log file in the Active Log screen. If you still cannot get a log to load automatically, open it manually and check the content. Double click any cart in the log and the current hour will load to the queue.

4, Voice tracking does not work/start recording: Ensure that you have an audio input. VT recording is level activated and thus if there is no level it does not start recording.

## Appendix A: Installing Autoplus clients on a network system.

- 1, Run the Autoplus setup.exe under an administrator login. Let the installer setup do everything it asks to. This will install dongle drivers and set the application up to run on an Access database. You will need to change this later. Do not reboot the PC when completed: We will do this later.
- 2, Run the installers for My SQL database connector versions 3.51 and 5.1 if you are using a MySQL database server. Now reboot the PC. We do not recommend using Access databases on networked installations.
- 3, Run Autoplus and click the settings button. Go to the database tab and change the settings to suit your database if it is not the default Access type. Click OK to set this and the settings screen will close
- 4, Open settings again and go to the Audio Handling tab. Set the audio path to: the *audio folder containing your latest audio on the server/network. This should be the path where you wish all new audio to be stored.*
- 5, Click the Cart Player tab and set the sound card devices to be used by each cart player.
- 6, Delete the shortcut to Import Engine (IServer) from the start up directory if it has been installed and close the Import engine from Systray (white icon with pink musical note). There should only be one Import Engine running on the network- ideally on the audio server.
- 7, Edit the setup.ini file thus:

### [System]

Get Free Cart Number Data File= *same path as all other workstations:*

This file contains the next cart number to be used on your network. Therefore if you do not have a single shared file it is possible that new audio will overwrite older audio.

### [Playlist]

Log Path= *same path as all other workstations*

Date Filter=ddmmyy (*must match the format set in your scheduler software output and all other workstations*)

Autoload=1 (*Only set to 1 if this is a studio machine running a log else set to 0*)

Log Post String (e.g. 'S1')= (*i.e. blank unless using multiple logs for multiple services*)

### [USERS]

Path for user files= *same path as all other workstations pointing to a shared folder containing all user profile files.*

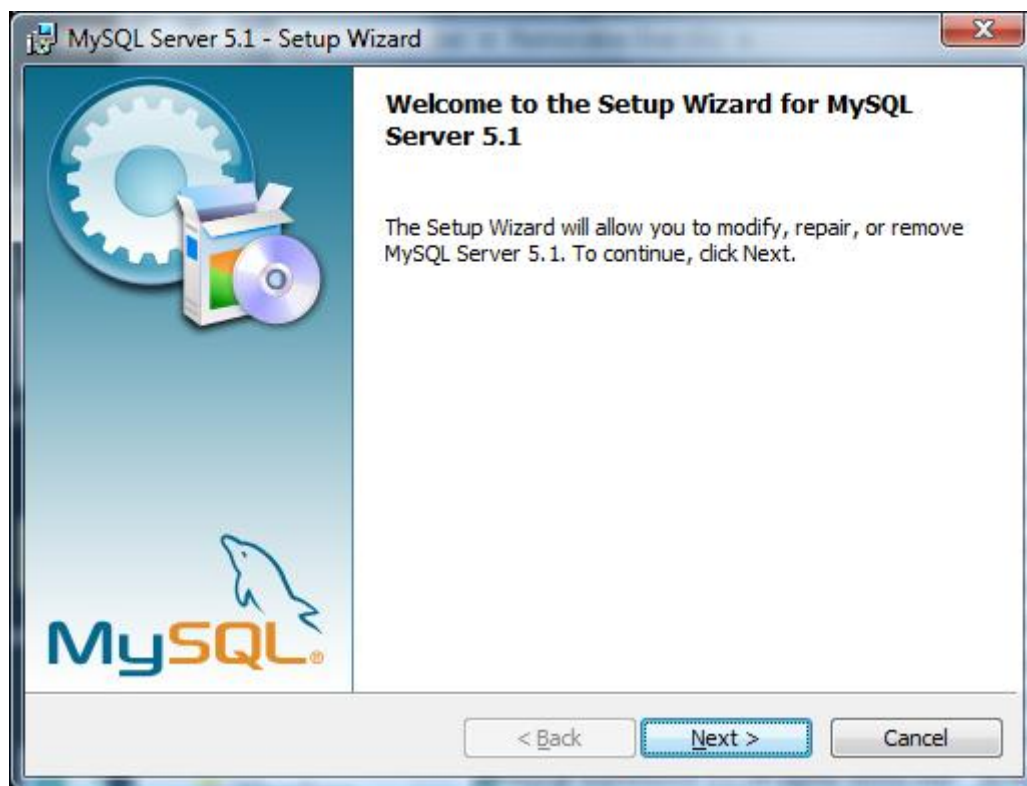
## Appendix B: Configuring Autoplus and MySQL

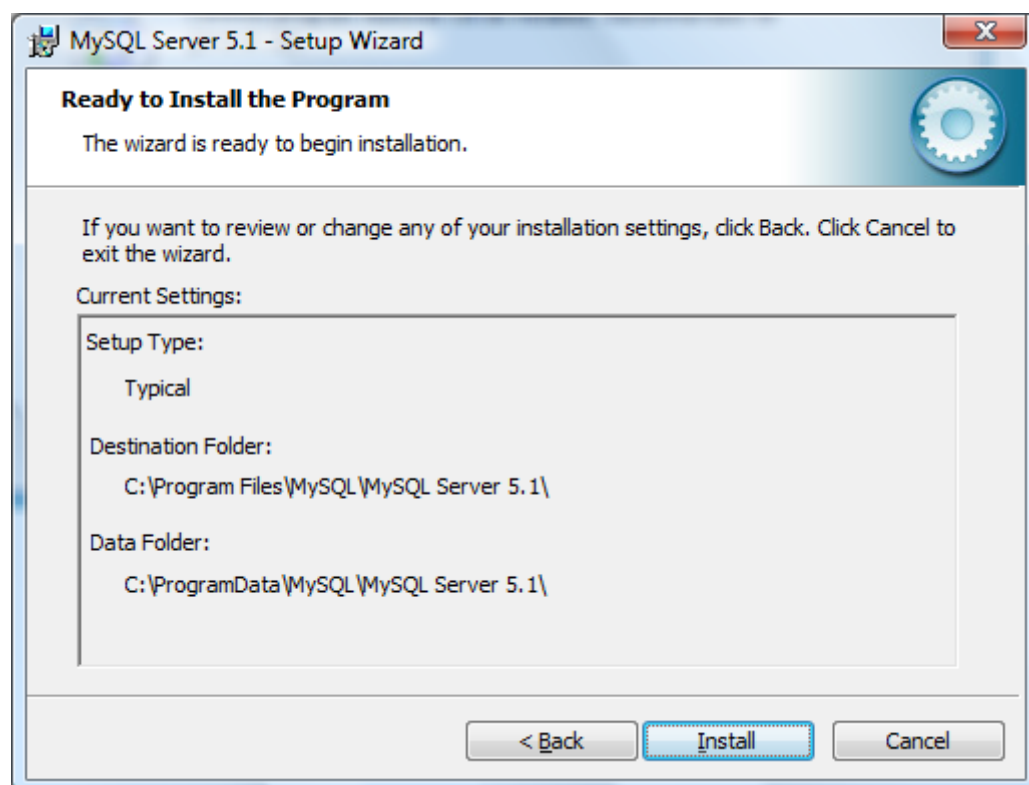
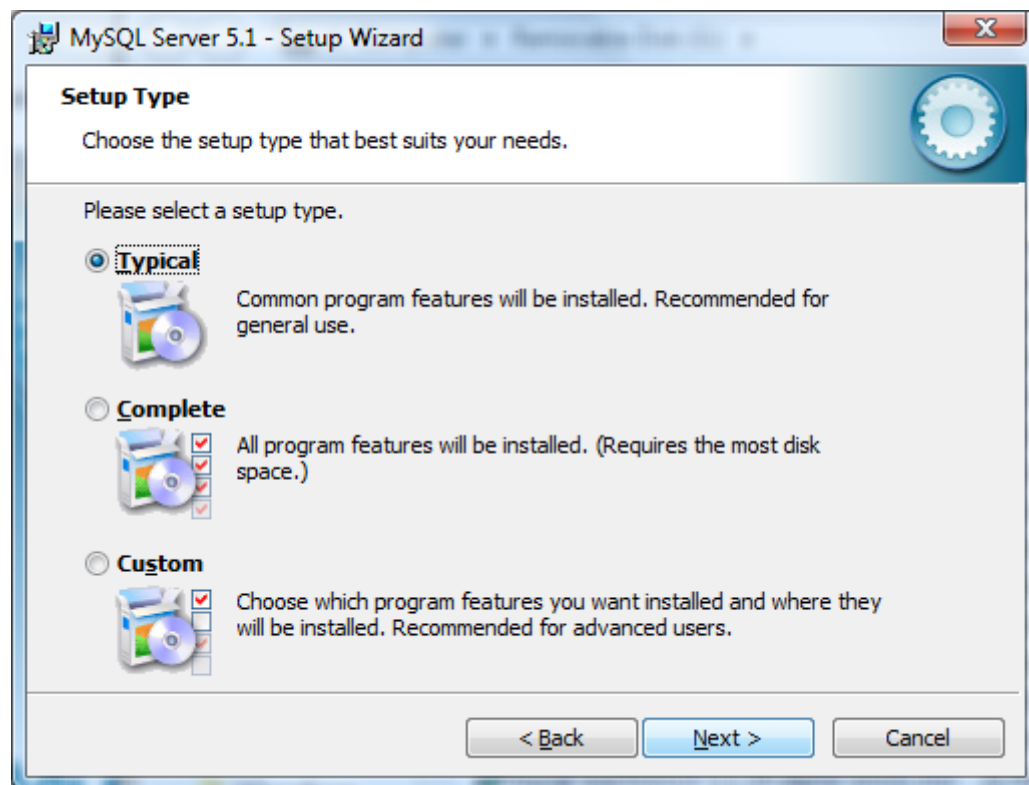
We recommend that for anything other than a basic single machine installation that MySQL is used as the database platform for Autoplus. MySQL is free to download and use. You can obtain the database server and requisite ODBC drivers from the MySQL website [www.mysql.com](http://www.mysql.com) or from Westcountry Broadcast.

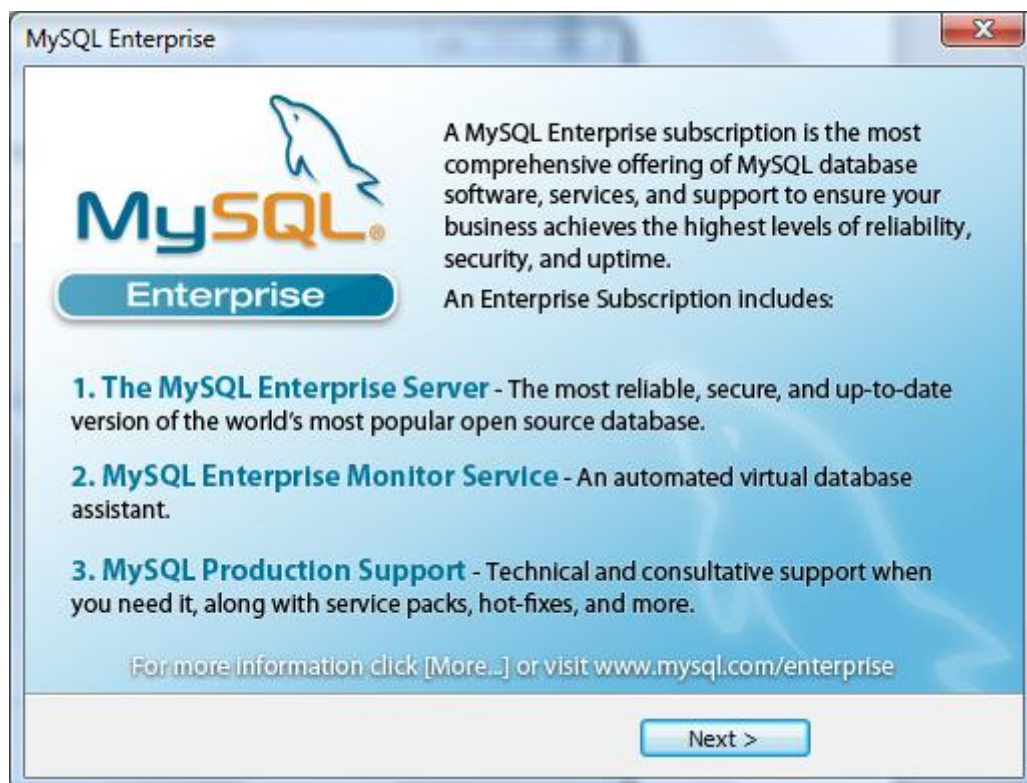
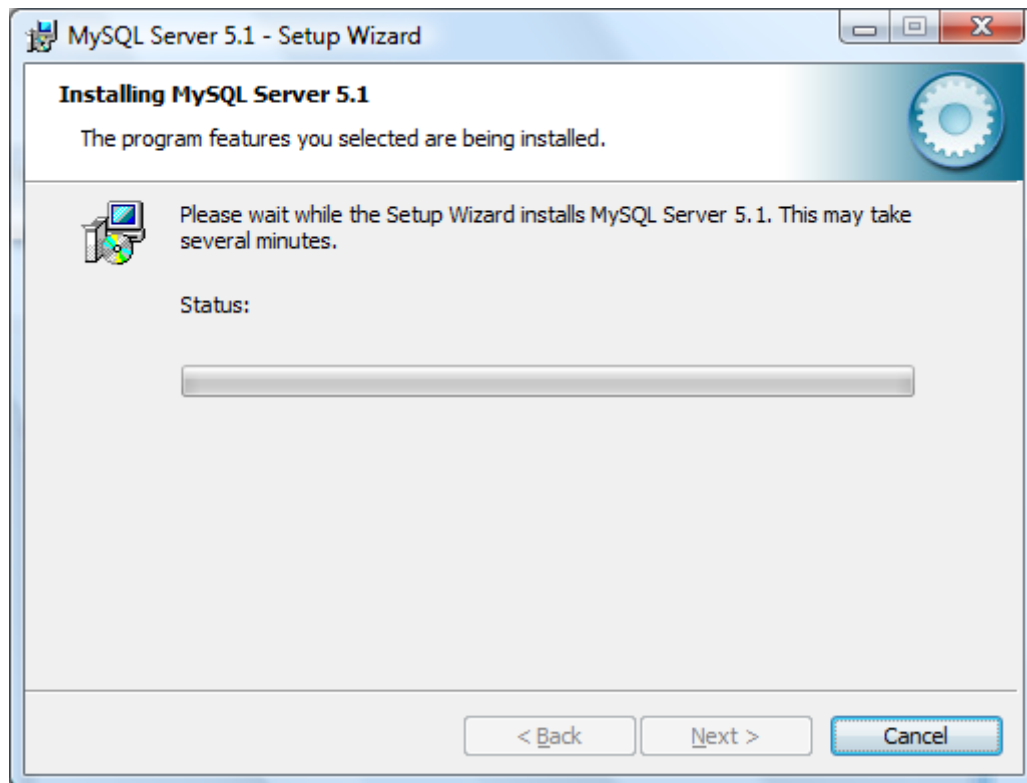
You will require the MySQL Community Server 5.1 and ODBC connectors for Windows versions 5.1 and 3.51.

Installing the two drivers is very simple- just double click the setup and click Next until the installs complete.

To install the database server, follow these steps:





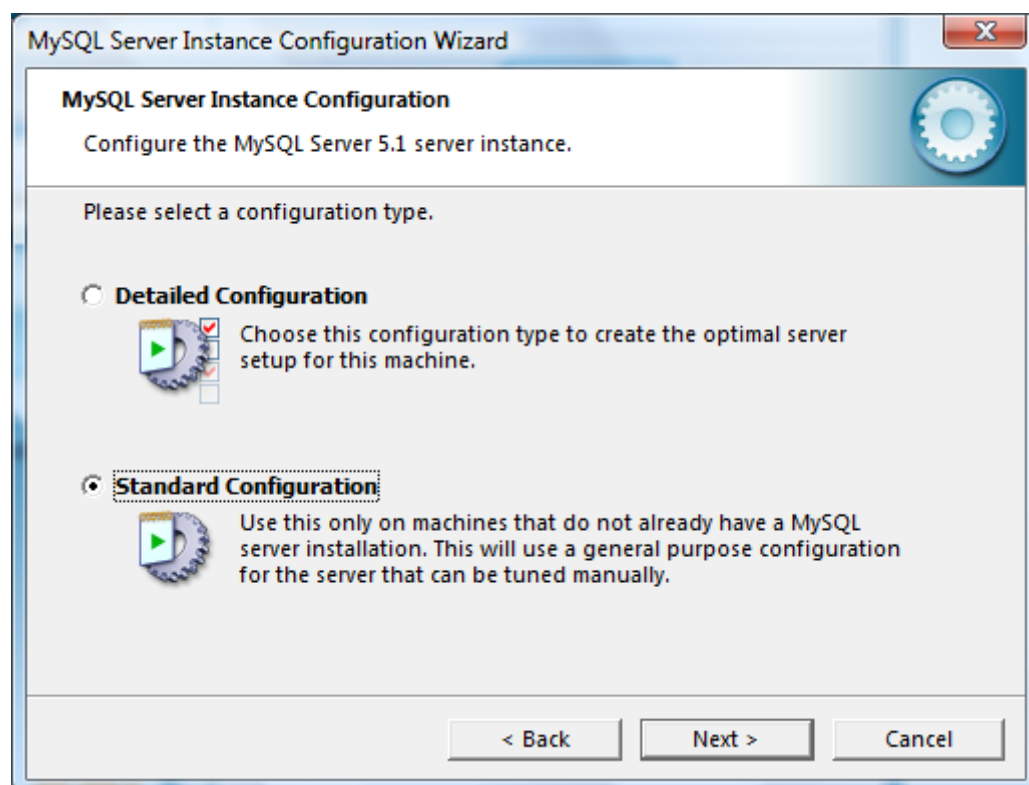
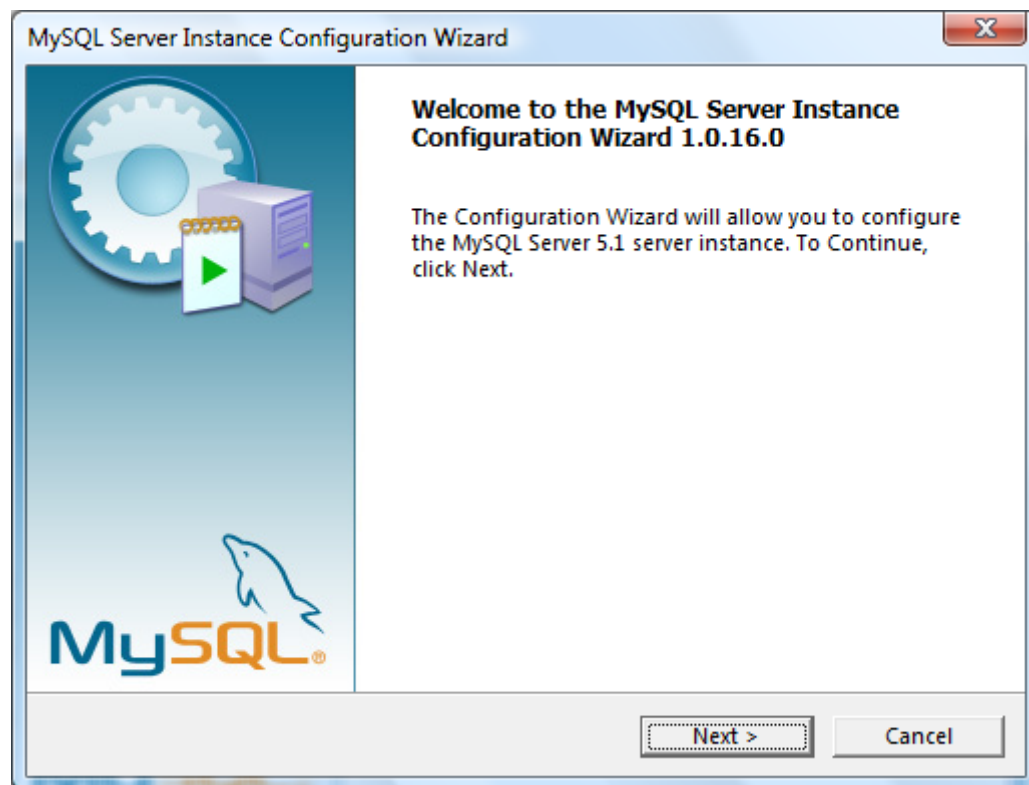






Obviously it is user choice as to whether you register your installation. If you choose to do so you will be directed to the appropriate part of the MySQL website.






Choose Standard Configuration. The default is Detailed Configuration.

MySQL Server Instance Configuration Wizard


**MySQL Server Instance Configuration**  
Configure the MySQL Server 5.1 server instance.

Please set the Windows options.

☒ **Install As Windows Service**  
 This is the recommended way to run the MySQL server on Windows.

Service Name:

☒ Launch the MySQL Server automatically


☐ **Include Bin Directory in Windows PATH**  
 Check this option to include the directory containing the server / client executables in the Windows PATH variable so they can be called from the command line.


< Back   Next >   Cancel

MySQL Server Instance Configuration Wizard

**MySQL Server Instance Configuration**  
Configure the MySQL Server 5.1 server instance.

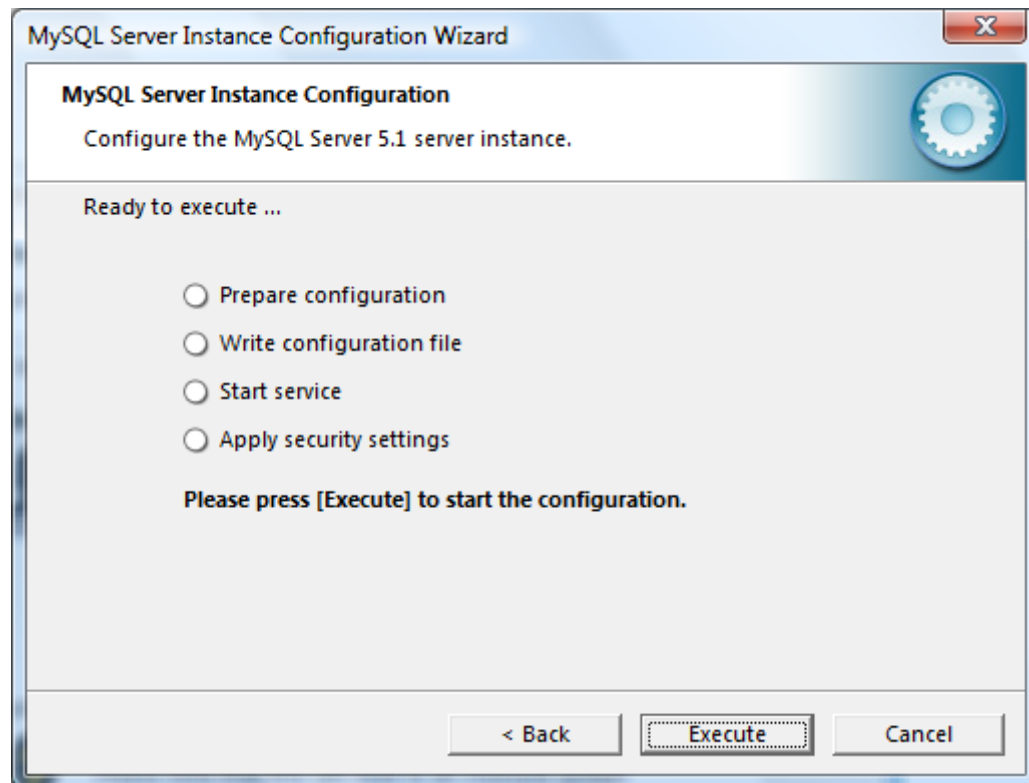
Please set the security options.

☒ **Modify Security Settings**  
 Current root password:  Enter the current password.  
 New root password:  Enter the root password.  
 Confirm:  Retype the password.  
☒ **Enable root access from remote machines**

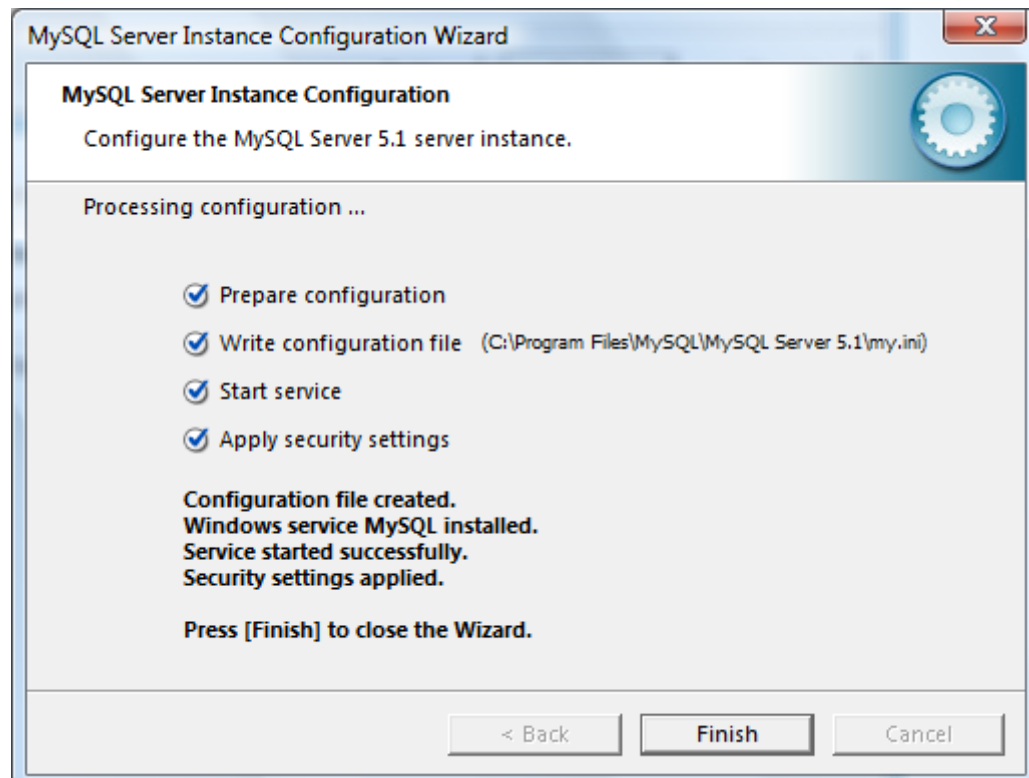
☐ **Create An Anonymous Account**  
 This option will create an anonymous account on this server. Please note that this can lead to an insecure system.

< Back   Next >   Cancel

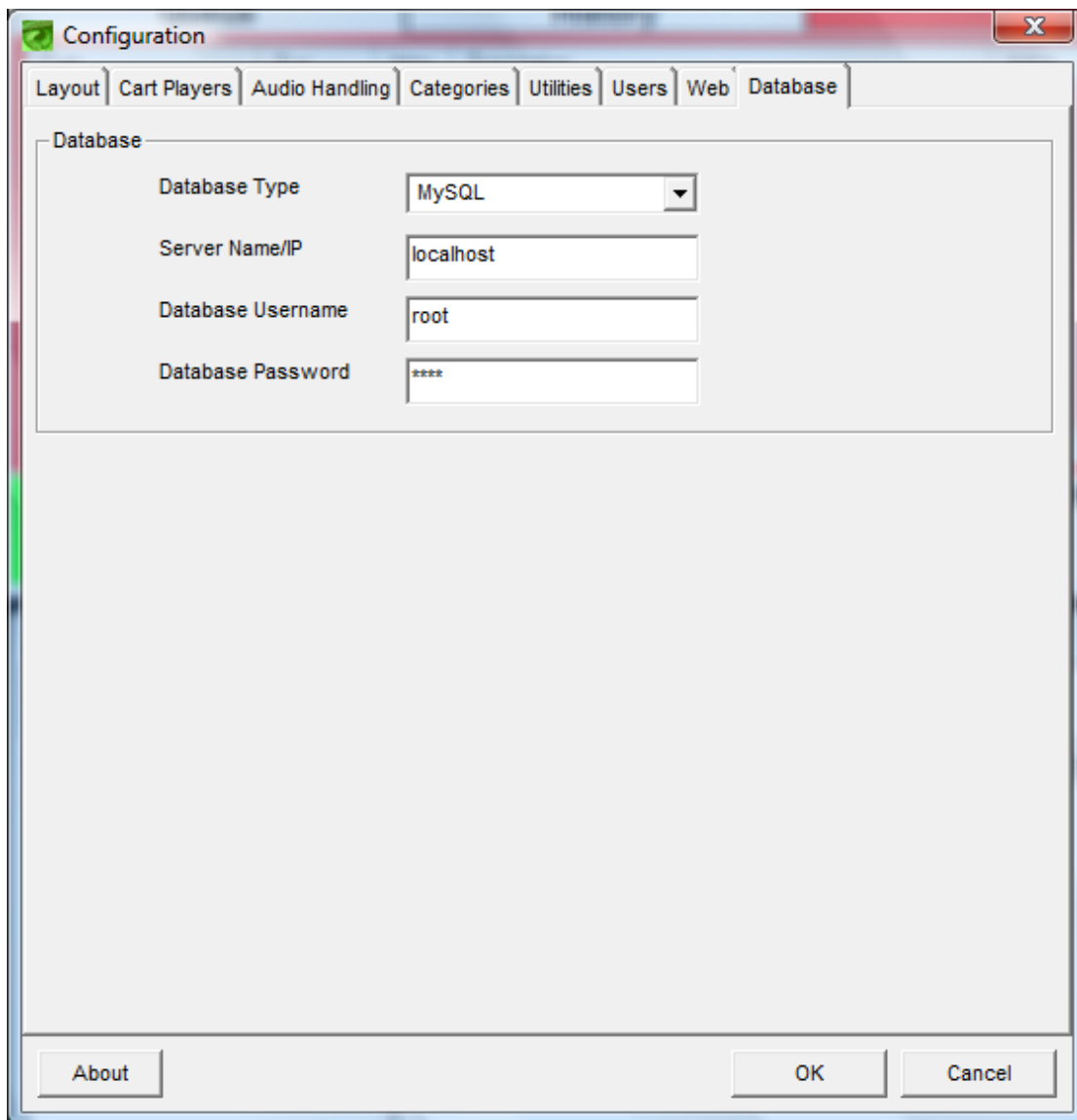
It is important for network operation that the “Enable root access from remote machines” is ticked. By default it is not. If you are not running Autoplus on more than the local machine then for security reasons it is sensible to leave it unticked.



When you click Execute, the installer will start the database server and configure settings. If it fails on any of the stages it will show a cross beside it and the most likely reason is that you are running a software firewall. Try disabling this to see if it allows the service to start. If it does you will need to create an exception for your firewall to allow MySQL.



Finally, ensure that the Database tab in Autoplus is configured to match your MySQL settings.



The screenshot shows the 'Configuration' window of the Autoplus application, with the 'Database' tab selected. The window has a title bar with a green icon and a close button. Below the title bar is a tabbed interface with tabs for 'Layout', 'Cart Players', 'Audio Handling', 'Categories', 'Utilities', 'Users', 'Web', and 'Database'. The 'Database' tab is active, showing a 'Database' section with four fields: 'Database Type' (a dropdown menu set to 'MySQL'), 'Server Name/IP' (a text box containing 'localhost'), 'Database Username' (a text box containing 'root'), and 'Database Password' (a text box containing four asterisks '\*\*\*\*'). At the bottom of the window are three buttons: 'About', 'OK', and 'Cancel'.

Please note that the database will not work with Autoplus unless BOTH database drivers are installed on each client PC. When you click OK on this screen, if database connectivity is working, Autoplus will create an Autoplus schema (database) on the MySQL server.

Autoplus does NOT have to be running or even installed on the machine being used as the database server.