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1. Introduction

Pub Jukebox is a general purpose digital jukebox software for installation on Windows® based computer systems, music is selected via a customer-friendly user interface, using either a touchscreen or a mouse.

There are different versions of Pub Jukebox available, some versions have coin input functions that enable jukebox builders to retrofit existing jukebox cabinets or to build new machines, there is also a free-play version for use on home computers.

Pub Jukebox comes with a companion program called "Jukebox Management Console" (JMC), this is an easy to use utility primarily aimed at business users as a way to store jukebox information & customer names, it also allows you to edit & compile music updates all in one place, other useful functions include the ability to read music statistics that are created by Pub Jukebox.

There is also an Enterprise edition of the JMC available that has options to 'scramble' music files in order to help deter unauthorized playing/copying of your music.

2. The editions

There are 4 editions of Pub Jukebox available that should fit most requirements.

PRO EDITION

The Pro edition is the best all-rounder, it plays standard music files and it includes the full feature set. This edition has great features like 'Background music' & 'Happy Hour', it also has Coin input functions for Coin-Operated use.

HOME EDITION

The Home edition is the 'Free play' option for your games room or parties, it has all the great features & functions of the Pro edition like 'Full screen mode' & 'Background music' but without the need to insert coins.

ENTERPRISE EDITION

The Enterprise edition is the same as the Pro edition in every way, except that it will only play audio files that have been encoded with an Enterprise edition of the JMC, this edition also enforces monthly music updates and is best suited to Pay-for-play business operators.

DONGLE EDITION

The Dongle edition features are identical to the Enterprise edition, the difference is that this edition has a portable usb hardware dongle license to enable fast PC changes, this eliminates the software deactivation/activation cycle. This edition of Pub Jukebox may also be installed & run from a large capacity usb flashdrive, this makes jukebox computer changes as simple as removing the dongle & flashdrive from the broken computer and then inserting them in a new one. This edition is best suited to larger business users where frequent on-site jukebox PC changes are likely.

3. Installing Pub Jukebox, an overview

Prerequisites for installation

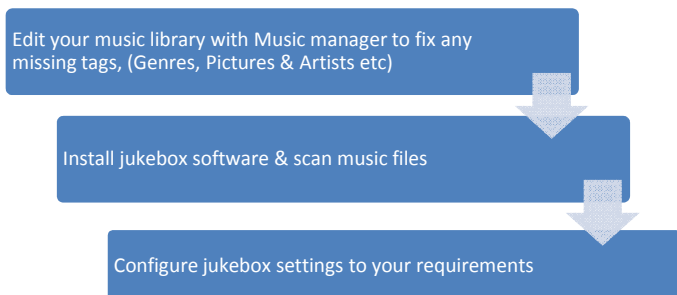
You should read all of this document before commencing installation

Computer literacy is required for a successful installation, the installer should be familiar with editing music file IDv3 tags, manipulating files & folders, installing programs & windows components.

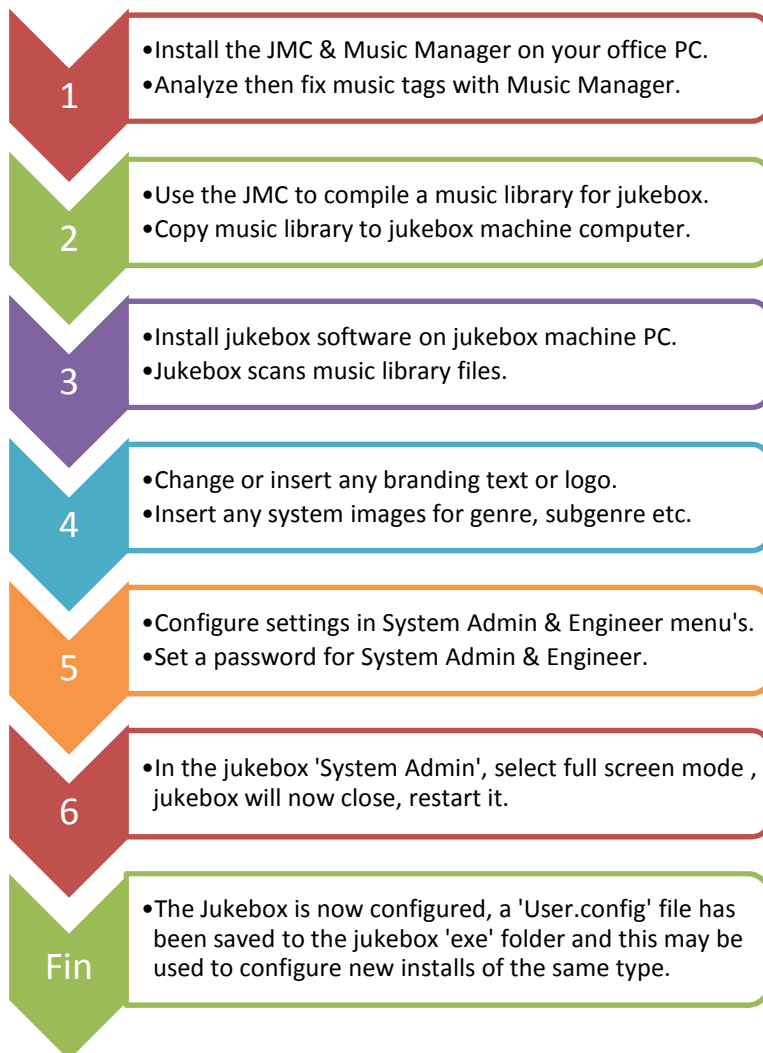
Pub Jukebox requires a 'tagged' music library to operate, tagging your music is the very first step and it cannot be skipped.

Recommended jukebox setup workflow

Home user

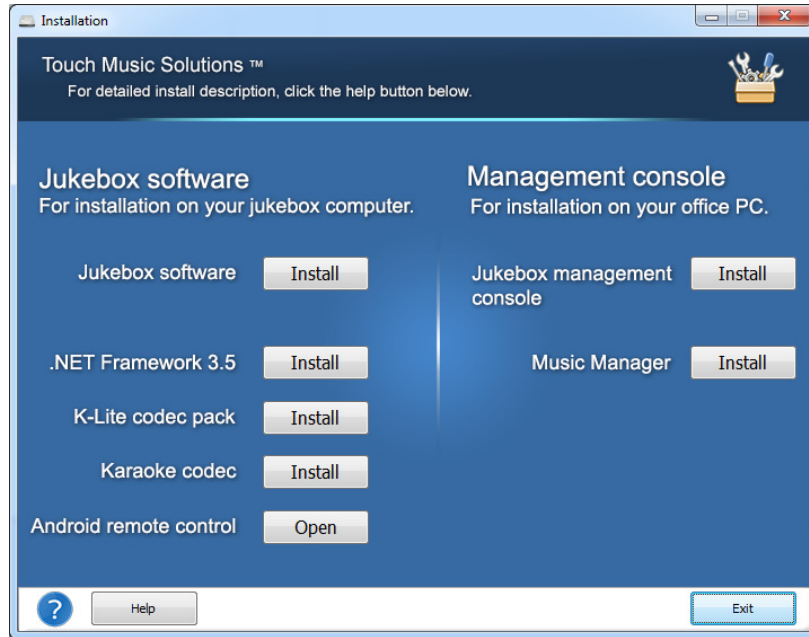


Business user



4. First step, preparing a music library for your jukebox

Run: 'PJX.exe' from your download or CDrom, this will open the install menu




Install the Jukebox Management Console & Music Manager

These 2 components should be installed on your Office or Home computer.

Note: Music Manager requires the Microsoft '.NET Framework 4' to run, and will try to install this for you straight after Music Manager has installed (wait up to 3 minutes for installer to start).

Tags, a quick explanation of how Pub Jukebox navigates your music files, and why they are important.

Open one of your music files with Music Manager and you will see the tags as shown below. ('Add tracks' tab -> Scan a track)

TAG	DATA	
		
Image		The Image tag, this tag is used to show cover image artwork for your track
Title	Billie Jean	The title tag*, Pub Juke box needs this to find your tracks
Artist	Michael Jackson	The Artist tag, this is used in the Artist A-Z feature
Year	1983	The Year tag, this enables users to search for tracks by year
Genre	Pop	The Genre tag*, Tells Pub Jukebox what genre your track belongs to
Sub-Genre	80s Pop	The Sub-Genre tag, tells Pub Jukebox what sub-genre the track belongs to
Album Name	Number Ones	The Album tag, enables searching by album & needed to navigate by album
BPM	117	The BPM tag, enables you to play background music of a certain BPM
(Beats Per Minute)		

The tags that are marked with a red star* above are mandatory for Pub Jukebox to function, the Title tag must be in place so that your music can be found, and the Genre tag is required to group your music so that it can be navigated.

The other remaining tags are very desirable to have in place, because any that are missing will greatly reduce the functionality and enjoyment of your jukebox.

If there is one single message to take away from this document, it is that you should correct any missing tags from your music library as a first task before proceeding further, it's the most important step.

Getting started, fixing broken tags

If you have many thousands of audio files then fixing all those tags can seem like a daunting task, but armed with the right tools this can be accomplished in a matter of hours, and the rewards speak for themselves with a jukebox that is a joy to use.

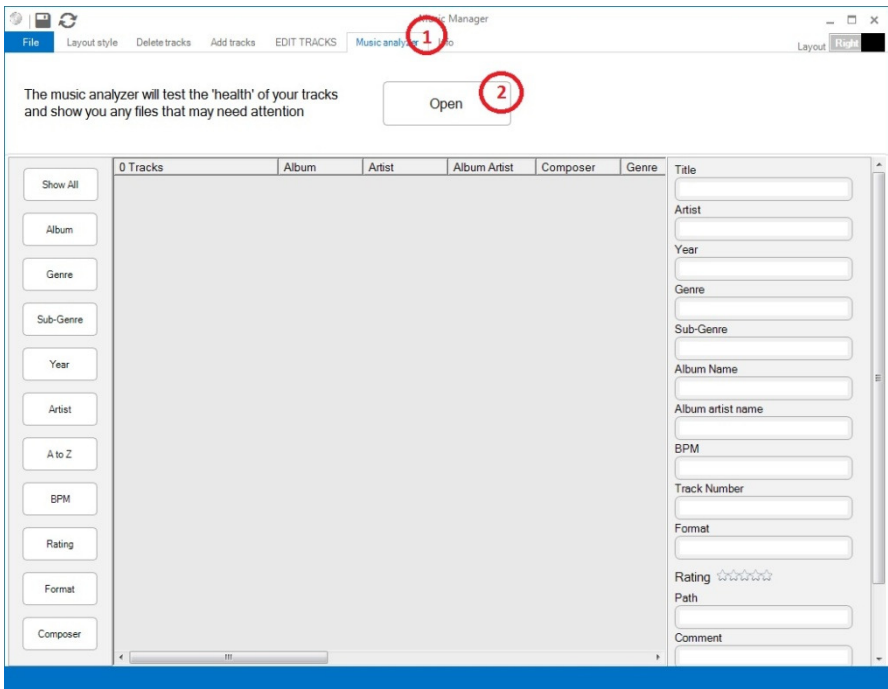
Included with the Jukebox Management Console is our tags editor named 'Music Manager', Music Manager has a handy music analyzer tool that will search your files for missing tags and display them for you to correct, we think this is the best way to fix your music collection.



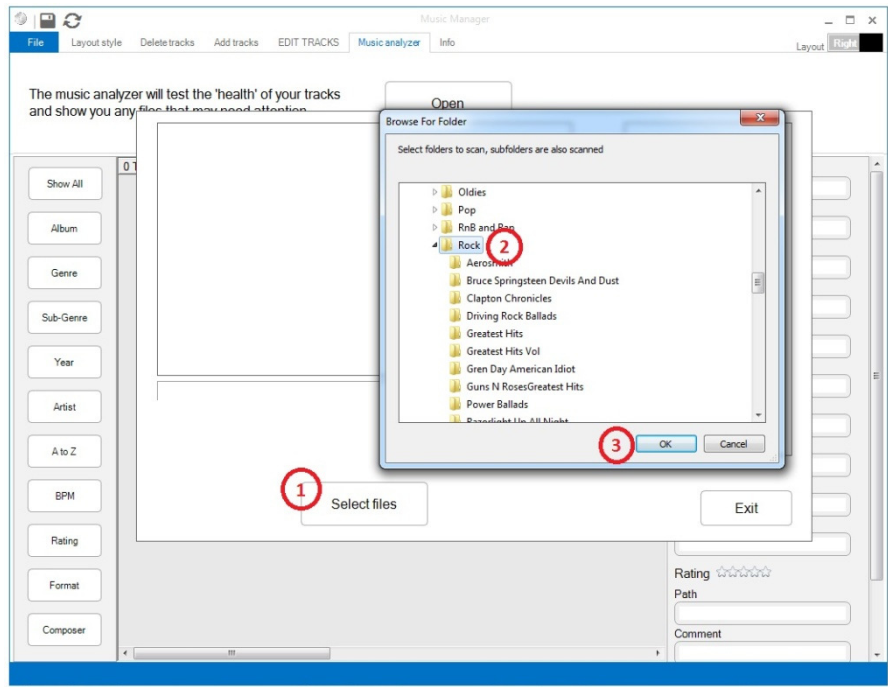
To get started, click the Music Manager button In the Jukebox Management Console

Fixing missing tags

Lets quickly fix some missing titles in your music collection...

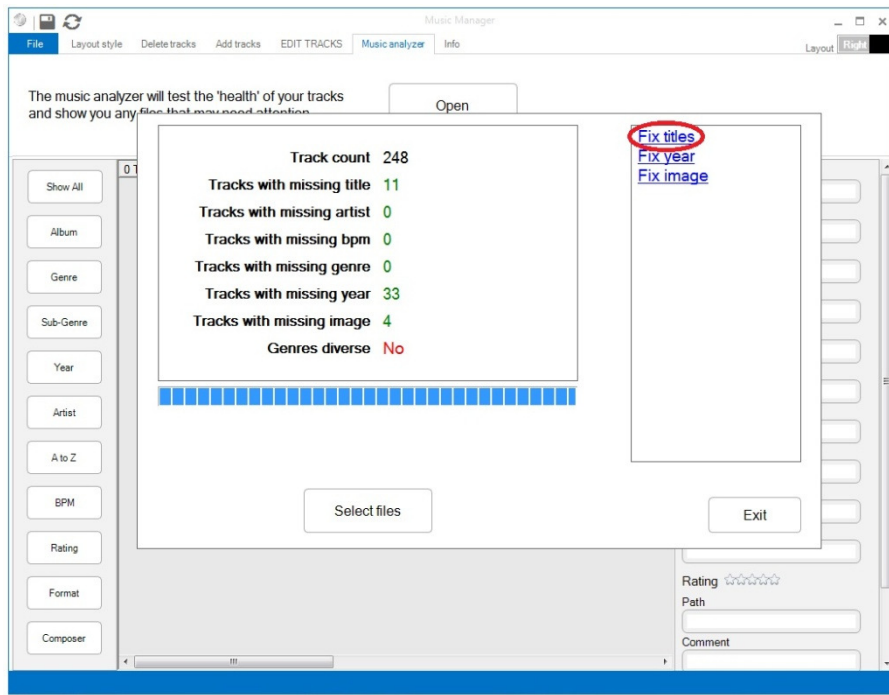


In Music Manager, open the Music Analyzer tool.



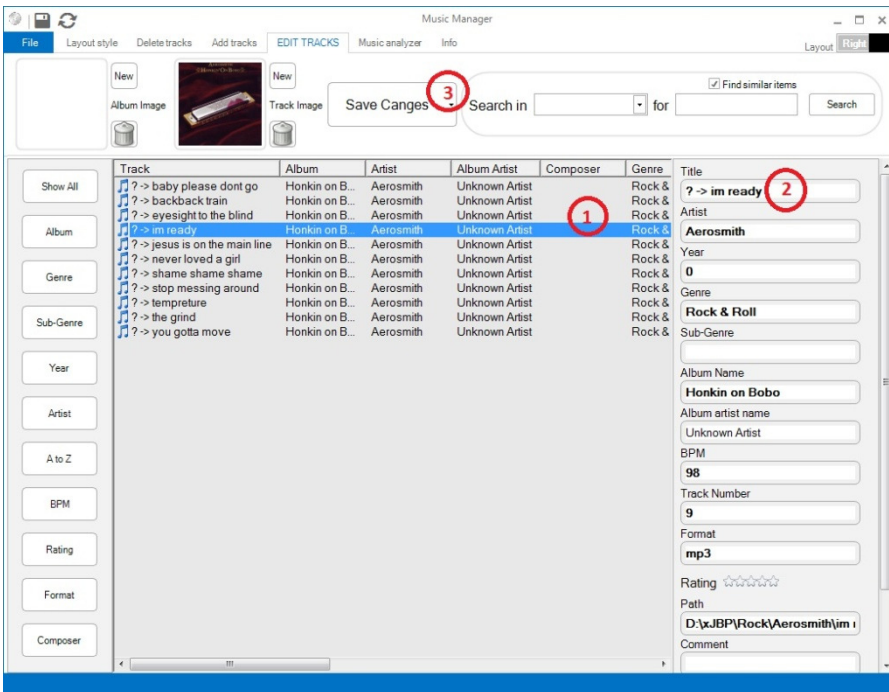
In this example we select a folder that contains some albums (all sub folders will be read).

Note: It's best not to select too many files to begin with to avoid confusion, start with 1 album or category.



All the tracks are read and missing tags are identified.

In this example we select the 'Fix titles' link to load those tracks into Music Manager for repair



The tracks with missing titles are shown, note that any title preceded by: '? ->' is a suggestion.

(1) Select a track to edit

(2) Edit the title, removing the '? ->'.

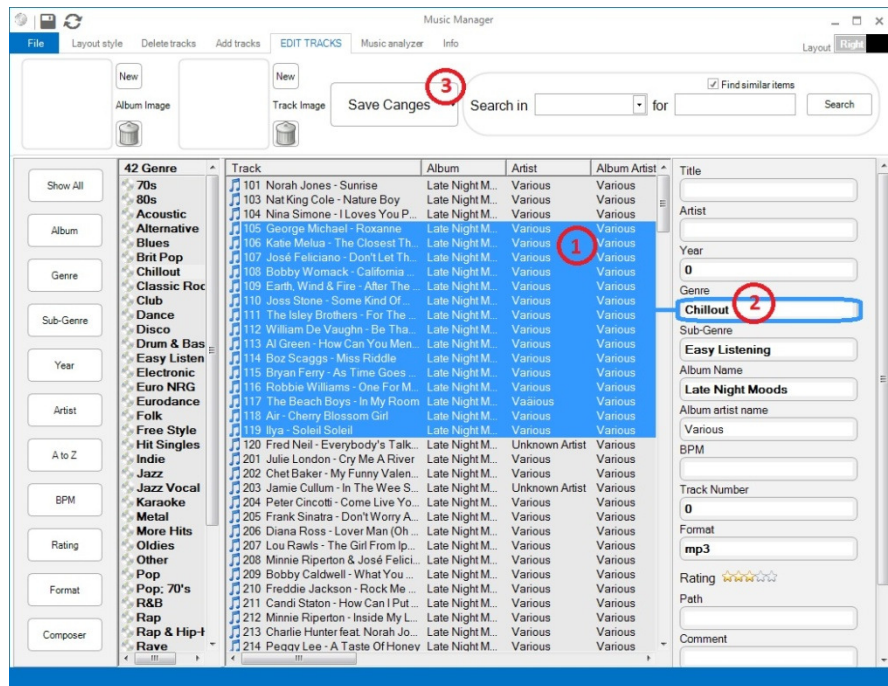
(3) Once you are happy with the title name, click the 'Save Changes' button.

Repeat the above steps to repair your full music collection.

Choosing genre's for your music *Note: 'Genres' are mandatory, 'Sub-Genres' are not and can be skipped

It's very easy to assign any music files you wish to a genre of your choice.

Simply open Music manager and select some music files, then type in the 'Genre' tag name you want and click save, that's it!



Tip:

Select many files by holding down the 'Shift' key on your keyboard.

You can type any name you wish for a Genre, Pub Jukebox will now be able to recognize which genre your tracks belong to and will organize them accordingly.

Note: The 'Xmas' & 'Karaoke' genre names are reserved for use in your Holiday & Karaoke tracks.

What about Genre & Sub-Genre Images ?

You should place all of your Genre images in the "Genre Images" folder here:- "C:\Program Files\Pub Jukebox\System Images\Genre Images" (There are already some genre images in there to get you started)

The genre image filename must match exactly the genre name you have chosen for your tracks.

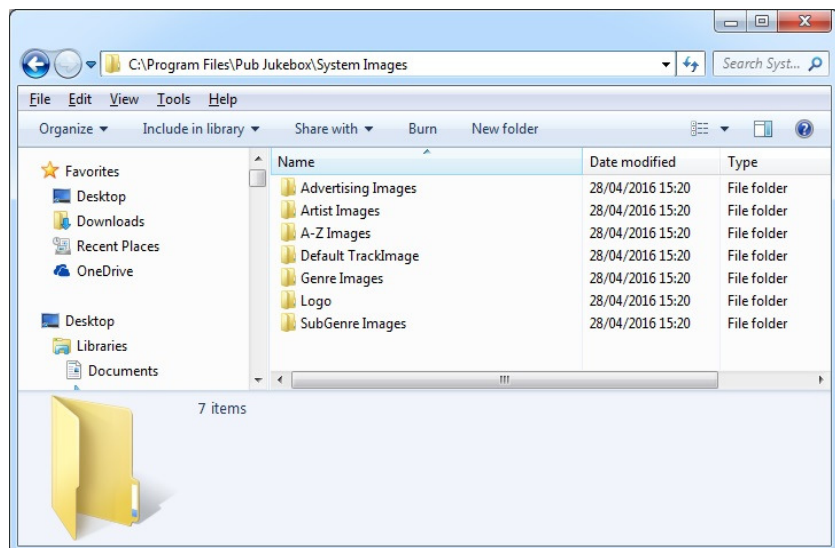
In the example above we have assigned multiple tracks to the "Chillout" Genre name, so your genre image must be named "Chillout.jpg".

The following would not work:- "chillout.jpg"

And it's just the same procedure as above for your Sub-Genre names & images.

More about images

All the images used by Pub Jukebox are stored in the following location:- "C:\Program Files\Pub Jukebox\System Images"

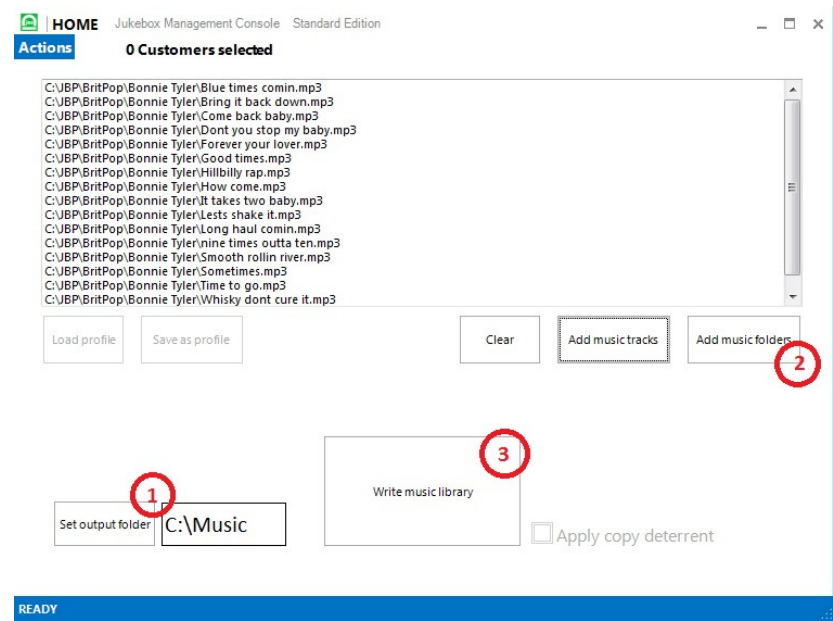


The images are stored in these folders...

There are "INSTRUCTIONS.txt" documents in each of these folders that describe what the images are used for, the type of images you should use & any other relevant information.

Writing your music library *Note: you must fix any missing music tags & set Genres as above before you continue

In the Jukebox Management Console (JMC), select the 'Music Library' button



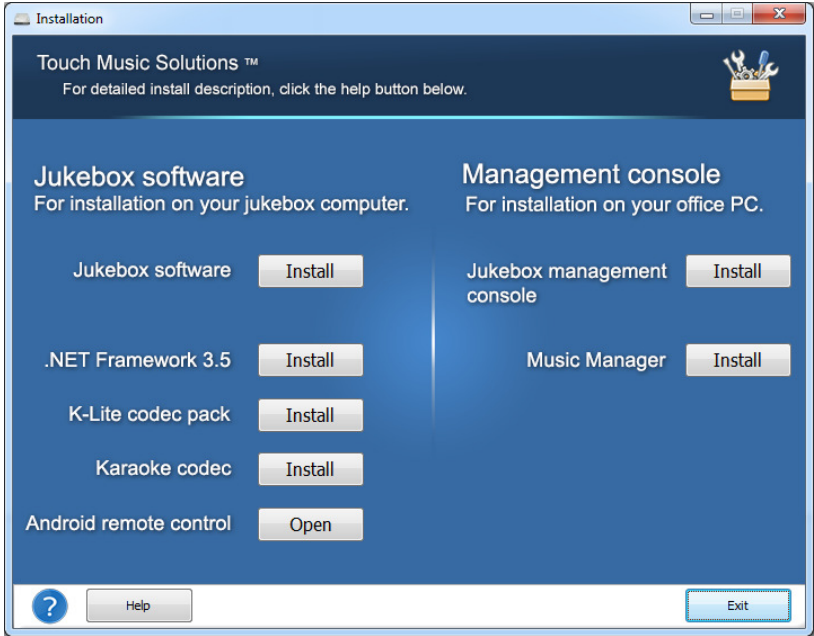
1. Set an empty output folder, this is where your music files will be copied to, Pub Jukebox will then use these new files.
2. Select the main source folder that contains all of your music files & folders, (sub-folders are also read).
3. Write the music library, this will copy all of your music files from the source folders to the output folder you selected in step1. This copying process will optimize the images in your tracks tags and copy all of the files into one folder for faster reading by Pub Jukebox. Be aware that this operation can take a very long time if you have a large music collection.

Note: If you are creating a music library for the 'Enterprise Edition' of Pub Jukebox then the "Apply copy deterrent" checkbox should be checked before you write the library.

If you have followed the steps above to create a new music library then you are now ready to install Pub Jukebox.

5. Install Pub Jukebox

Run: 'PJX.exe' from your download or CDrom, this will open the install menu



Install the Jukebox Software & .NET Framework 3.5

This is a required windows component. Win XP machines and some early Win7 computers do not have this installed by default, Win 8 & Win 10 have this component already installed. You should try to install this, but if it refuses to install or hangs then you probably already have this on your computer.

K-Lite codec pack

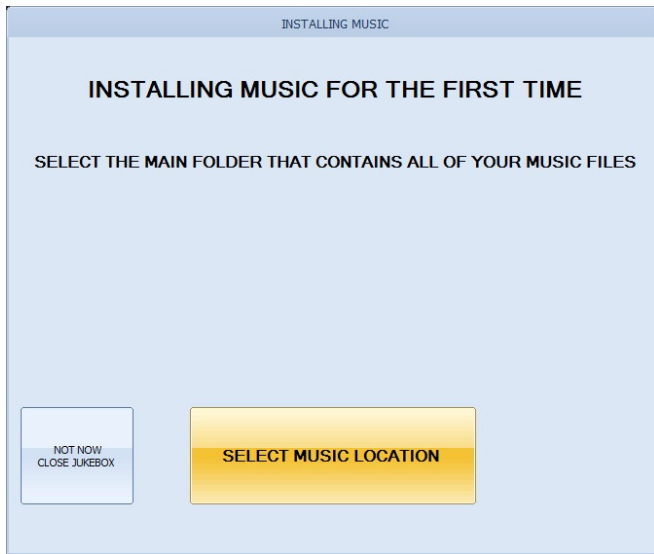
This codec pack will install a range of audio & video codec's on the target machine, this allows you to play a wider range of audio & video tracks, You can select the defaults during install.

karaoke codec

This codec allows the jukebox to play karaoke files (mp3+g). These components should be installed on your jukebox computer.

Scanning your new music library with Pub Jukebox

Launch Pub Jukebox



You are presented with the 'New install' dialog box.

Click the "SELECT MUSIC LOCATION" button and choose the 'Output folder' that you saved your new music library to in the steps above. (In the example above the output folder was "C:\Music")

Pub Jukebox will now scan all of the music files in your new music library folder.

Be aware that this operation can take a very long time if you have a large music collection.

Pub Jukebox is now installed.

6. Configure Pub Jukebox

The backend menu's, a brief description

The Pub Jukebox backend menu pages are grouped into 2 sections for '**Engineer**' & '**System Admin**', the **Engineer** pages are for settings that are changed more frequently, for example to change the price of play or to set background music times. The settings in the **System Admin** pages are typically set when the jukebox software is initially installed and are rarely changed afterwards, these types of settings would include things like the screen calibration program or the coin input mapping etc.

Both the **Engineer** & **System Admin** menu's have passwords that can be enabled to protect them from unauthorized entry. The default password for both menu's is 55555, you may change these pin numbers in the System Admin -> security page.

To open the **Engineer** or **System Admin** menu's the default input (door switch) is 'TAB' (the tab key on your keyboard)

The System Admin menu

The System Admin menu pages are arranged by 'Tabs' at the top of the screen, the pages & settings are listed below.

Music

Install music library:- Runs the music scan again to install a new music library.

Tracks are new for:- Shows tracks as new for the amount of days that you set.

BPM Threshold:- The point at which tracks are no longer considered as low bpm and become high bpm (beats per minute).

STARTUP

Startup text:- Text that will briefly be shown on screen when the jukebox starts.

Launch jukebox at windows startup:- Places a start object in the windows registry that will start the jukebox with windows.

SECURITY

Require engineer pin:- Secures the Engineer menu with a pin, the default is 55555.

Require admin pin:- Secures the System Admin menu with a pin, the default is 55555.

Allow engineer radio options:- Allows the engineer to enable/disable internet radio bgm features.

Allow engineer video options:- Allows the engineer to change 2nd screen options if you have a secondary monitor.

Reset cash meter:- Resets the cash meter back to zero.

INPUT

Set screen calibration program:- If you have a touchscreen installed on your jukebox this feature will automatically start your screen calibration program in the event that you cannot touch any on-screen buttons.

Inputs:- Touch any input button to change it and then trigger your desired input to save.

COINS

Currency symbols:- Choose the Major & Minor symbols for your currency, the defaults are '£' & 'p' (UK Pounds & Pence)

Monetary unit value:- Set the lowest logical unit of currency, the default is '5p' (UK 5 pence)

INTERFACE

Video window size:- Sets the size of the top content window when using the 'Vertical' layout option

Show mouse pointer:- Show or hide the windows cursor, **only enable this if you have a working touchscreen already attached.**

Full screen mode:- Changes between running in a window or full screen, a restart is required to save.

Show advertising:- If enabled will show advertising images (C:\Program Files\Pub Jukebox\System Images\Advertising Images)

TITLE CARD

Title card rendering:- Sets how many title cards are initially generated & rendered off screen, only change these values if there is a problem as there is a performance penalty the more you increase these values.

Title card colour:- Set title card colour attributes for Genre, Audio, Video & Karaoke tracks

THEME

Enable theme engine:- enable painting of windows borders and system buttons.

Theme source:- Choose a theme

Graphics source:- Choose custom graphics images for the main user interface (C:\Program Files\Pub Jukebox\System Images\Interface Images)

Border transparency & colour:- Customize the system borders on the main interface, also colours system text.

Screen background:- Set colour of main screen background.

TITLE

Set jukebox title:- Type the title you wish to display, use markup to style the text.

DEACTIVATION

Deactivate:- Deactivates the jukebox license so that the jukebox software may be installed on another machine.

End of System Admin menu.

The Engineer menu

The Engineer menu is arranged as a set of sub-pages that are accessed from a single top page , the pages are listed below.

TRACK QUEUE

Limit track queue:- Limits the number of tracks the playlist can contain at any one time.

Reject:- Removes the track currently playing.

Clear all:- Removes all tracks in the playlist.

EXCLUDED TRACKS

Xmas:- Limits the display or playing of the tracks you have assigned to the "Xmas" genre (holiday songs).

Karaoke:- Limits the display or playing of the tracks you have assigned to the "Karaoke" genre.

SHUTDOWN OPTIONS

Jukebox closed screen:- Shows a screen saying "Jukebox Closed" & mutes sound at the specified time

Shutdown jukebox:- Issues a shutdown command to the jukebox computer at the specified time.

VIDEO OPTIONS

User Interface:- Displays all content in the main user interface (default).

Display2:- Shows videos and content on a second screen attached to the computer, to use this feature the windows desktop must first be 'extended' onto your secondary monitor.

BACKGROUND MUSIC

Off:- Background music is off

Constant:- Background music will play tracks from the music library.

Interval:- Background music will play tracks from the music library at the set interval.

BACKGROUND MUSIC -> RADIO

Start radio:- Starts playing the 'Primary URL'.

Fallback 1,2 & 3:- When the primary URL cannot be acquired Pub Jukebox will attempt to play theses stations instead.

BACKGROUND MUSIC -> TIMERS

Bpm range:- 'All Bpm' will choose background music from any tracks in the music library, Low & High Bpm will discriminate according to the value in the BPM tag of your music files.

Weekdays:- The days of the week background music should play.

Start & Finish:- The start and finish times when background music should play.

PRICE OF PLAY (NOT USED IN HOME VERSION)

Enable free play:- When disabled paid credits are required to play songs.

Plays / Units:- Sets the amount of plays given for cash...

example: 1 Plays for 6 Units = 1 Credit for 30p (because 1 Unit = 5p)

so, to get:- 2 credits for £1, we would set 2 plays for 20 Units (because 20 x 5p = £1)

PRICE OF PLAY -> COIN VALUES

Coin / units:- The amount of units each coin should give, coins 1 -6

HAPPY HOUR (NOT USED IN HOME VERSION)

Happy Hour:- Enable free play between the times that you set.

Start / Finish:- The times between which happy hour is enabled.

Limit track queue:- Limits the number of tracks the playlist can contain during happy hour (works independently of the setting in Track Queue)

Weekdays:- The days off the week that happy hour should operate.

REMOTE CONTROL (ANDROID REMOTE)

Port:- The port number that the remote should communicate on, your android remote control port setting should match this.

Enabled:- Enables/Disables remote control, requires restart to take effect.

REMOVE TRACKS

Load:- Loads all the tracks from the music library.

Delete:- Deletes the selected track

Save Changes:- Saves changes to the music library and reloads it.

End of Engineer menu.

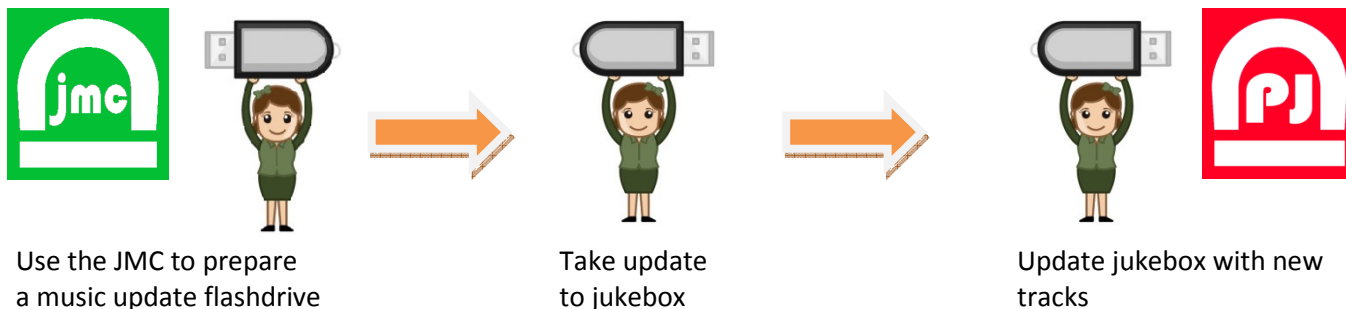
7. Updating music

Preparing a music update for your jukebox is a straightforward task, but there are different considerations depending on the edition of Pub Jukebox you are using.

Overview by edition

Home & Pro editions

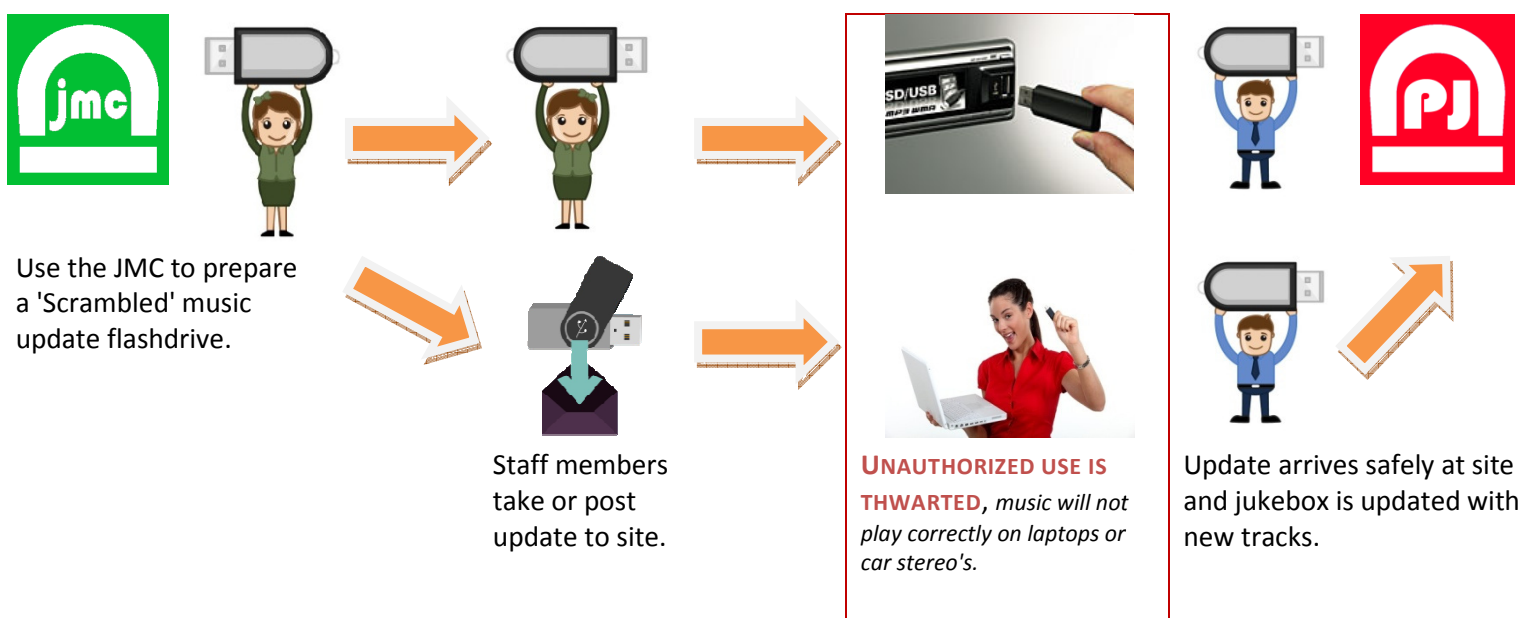
Both the Home & Pro editions allow you to simply copy new mp3's onto a USB flashdrive and use this to update your jukebox, however the preferred method is to use the JMC to prepare updates as follows...



Enterprise & Dongle editions

The Enterprise & Dongle editions use 'scrambled' audio files as a copy deterrent to help protect your music from unauthorized use, and so updates must be encoded by an Enterprise edition of the JMC.

Both the Enterprise & Dongle editions of Pub Jukebox must be updated with new music each month, the jukebox will refuse to play if your jukebox customer does not purchase/obtain music updates from you regularly.



Notes:

The Enterprise & Dongle editions of Pub Jukebox generally require a faster computer to cope with the music decoding algorithm.

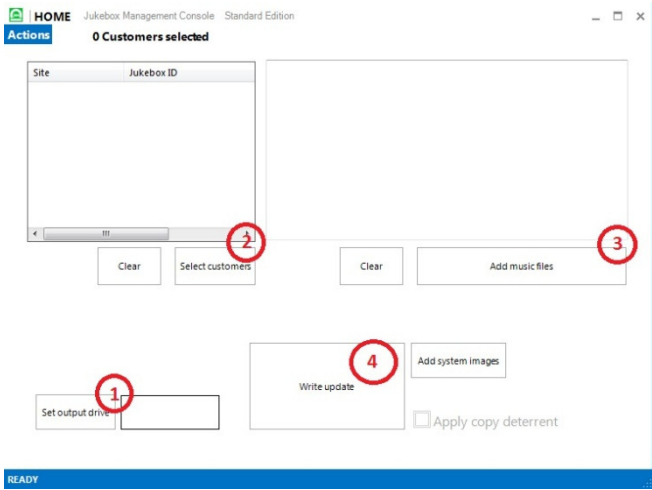
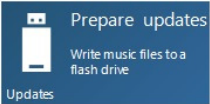
Pub Jukebox & the JMC are not security products, the music scrambling feature is a deterrent to casual copying only, they do not protect your files from computer hackers etc.

File types that are encoded are:- (Audio files:- .mp3, .wma, .aac, .m4a)

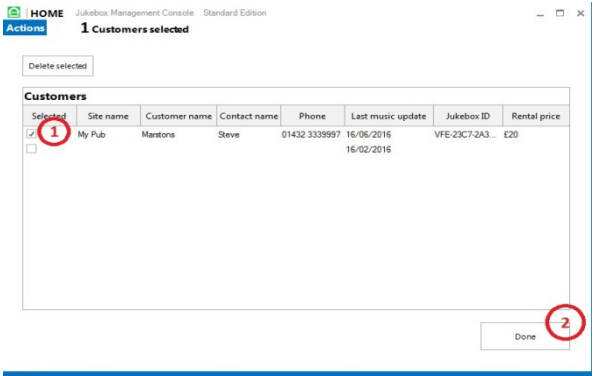
Create a music update

Insert a blank USB flashdrive in your computer

In the JMC, select 'Prepare Updates'



- <-
- (1) select your USB flashdrive
 - (2) Select the customer (jukebox) you want to create the update for ->



Enter the Jukebox ID (jukebox serial) & customer details and tick the 'Selected' checkbox, click the 'Done' button.

(3) Select the music files you wish to include in the update

(4) Write the music files to your USB flashdrive

Note: If you are updating music for the 'Enterprise or Dongle editions' of Pub Jukebox then the "Apply copy deterrent" checkbox should be checked before you write the update.

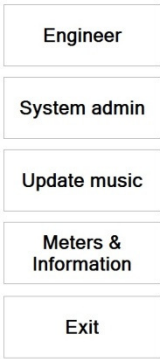
The update flashdrive is now ready, you may take this to the jukebox.

Updating the jukebox

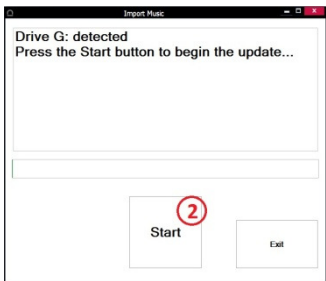
Open Pub Jukebox



Trigger the door switch, (The default input is the TAB key on your keyboard) .



In the menu that opens, select 'Update music'



The update dialog is shown, insert your update flashdrive now.
Once your flashdrive has been detected, select the 'Start' button to begin the update.
When the update is complete a 'Finished' message will be shown, click the 'Exit' button.
Note: Music usage statistics are saved to your flashdrive whenever you perform a music update, you can import these stats back to the JMC for analyzing what kind of music & genres your customers like.

8. Performance considerations for slow computers

Pub Jukebox has been designed to work well on most modern computers, if however you are installing on a slow or old computer then there are a few steps you can take to improve performance...

1. Install a better graphics card
2. Install a faster processor & memory
3. Reduce the screen resolution to the lowest usable setting that you can, Pub jukebox will go as low as 1024 x 768, experiment with different screen resolutions to get the best look/performance balance.
4. Use a graphics source that does not have a background image for the main user interface, background images need a lot of fast video memory to paint.
5. Don't increase the 'Title card rendering' settings, increasing the number of title cards to generate will tax the processor of slow computers.
6. Set your windows operating system theme to 'Classic' for best performance & prevent any unnecessary programs from running at the same time as Pub Jukebox.

On startup Pub jukebox will query the computer for CPU speed, Video ram & System ram and will highlight any components that fall below the minimum specification in red text, you can see this in the 'Meters & Information' page (1).

Engineer	Cash in	5
System admin	Site name	The Kings Head Main Street Sheffield
Update music	Machine Id	VFJ-2ED7-4G3E-923S-2KMS-2EDF-99QA-GAX5
Meters & Information (1)	Software version	V1.0.0.0
Exit	Available memory	27.28 Gb
	CPU speed	650 Mhz (2)
	Video ram	2 Gb - NVIDIA GeForce GTX 950
	Back	

If any of the components are highlighted in red (2) Pub Jukebox will automatically remove any resource-hungry objects like the main screen background image & flash animations in order to try and prevent windows from allocating resources to them and freezing or crashing your jukebox computer.

Note: The Enterprise & Dongle editions of Pub Jukebox generally require a faster computer to operate correctly.

9. Screen orientation

The default screen orientation for Pub Jukebox is horizontal (landscape), however if your jukebox cabinet has a vertical screen (Portrait) Pub jukebox will detect the dimensions of your screen and automatically switch between screens that are optimized for your particular screen orientation (you may still need to adjust screen resolution for best look & performance).

The screen switching detection interval is 5 seconds or less.

10. Supported music file types

Pub Jukebox plays the most popular media file types...

Audio files:- MP3, WMA, AAC, M4A

Video files:- MP4, WMV, AVI, MPG

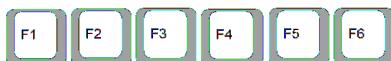
Karaoke files:- MP3+G

Note: Bear in mind that Video files require a faster/modern computer to play correctly, especially HQ video tracks.

11. Coin acceptor interfacing

Overview

Pub Jukebox accepts a standard computer keyboard as an input device, this makes it very easy to connect a coin acceptor. Your keyboard keys F1 thru F6 correspond with the coin inputs 1 to 6.



To trigger these inputs with a coin acceptor you need an interface that will generate a keypresses when a coin is inserted .

Coin acceptors

There are two main categories of coin acceptor, and the type that you choose dictates the interface you need.

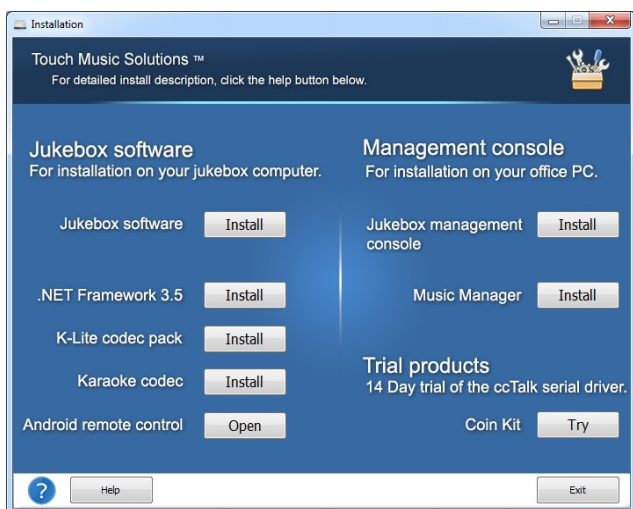
Pulse:- This type of coin acceptor gives a short pulse when a coin is inserted, search on eBay for:- "CH-926".

You will need a 'HID' interface board for pulse coin acceptors, search eBay for "keyboard encoder".

Serial (ccTalk):- This is the preferred type of coin acceptor, search on eBay for "SR5", "SR3", "Money Controls" & "ccTalk".

These types of acceptor communicate with your PC via a USB serial cable, a windows software driver handles the serial communication and generates keypresses when a coin is inserted, this is the easiest way to connect a coin acceptor.

For a simple wiring diagram & windows driver see our Coin Kit™ product.



Coin Kit is fully compatible with Pub Jukebox and a 14 Day trial is included on the install menu for your convenience.

RVC (Remote Volume Control)

An Android® remote control app is included on the install menu, once installed on your android device you will be able to control certain functions of Pub Jukebox remotely via your Wi-Fi router.

These are the functions that you can control remotely

VOLUME+ Turns volume Up

VOLUME- Turns volume Down

MUTE Mutes the volume

CLOSED Show or hide the 'Jukebox Closed' screen

REJECT Rejects the track playing

CREDIT Adds a credit

POWER Shuts-down the jukebox (push 10 times in quick succession)

DOOR Triggers the door switch to open

End of document