Computer Playback (Automation)

Volume III of The WMUL-FM Operations Manual

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For Students, Staff, Faculty, and Community Volunteers Participating
in the Operation and Programming of Radio Station
WMUL-FM 88.1 MHz

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Dedicated to Alec Reeves, Harry Nyquist, and the
other pioneers of digital audio.

"Begin the day with a friendly voice
A companion unobtrusive
Plays that song that's so elusive
And the magic music makes your morning mood"
— Rush, "The Spirit of Radio"

Contributers to This Edition

Some glossary definitions (Part 16) are taken from
Modern Radio Production: Production, Programming, and Performance
Tenth Edition
Hausman, Messere, Benoit, and O'Donnell

Part 13 header photo (page 0) by Braxton Crisp.

Table of Contents

13. Introduction to This Volume

Reader's Notes

The instructions for operating WMUL-FM are spread across several volumes. This volume covers everything about the computer playback system. It covers both the on-air usage of the workstations in the studios and the behind the scenes usage of the auxiliary software.

If you are new to WMUL-FM, the place to start is with the New DJ Guide. It is the front two parts of Volume II - On-Air Operations Manual. The July 2016 edition is a 164 page book with the picture of a turntable on the cover.
The New DJ Guide is comprised of parts 6-8 of Volume II. It covers the most important policies and technical information for your first DJ shift.
Parts 9-12 cover Studio A in detail.

Volume I - Policies and Station Organization covers the station's organizational structure and policies. The July 2016 edition is a 141 page document with a picture of a guitar on the cover.

13.A. Using This Volume

This volume covers the computer playback (automation) system.
Part 14 covers the on-air operation of the computer playback system in detail. This includes RD AirPlay, searching with RD Library, and the sound panels. Part 15 covers the off-air or "behind the scenes" operation of the computer playback system, including how to create and edit logs and ingest new audio.

Part 16 is the glossary. It is identical to the one printed in Volumes I and II.

14. Computer Playback (Automation)

Reader's Notes

The majority of the recorded audio played over WMUL-FM plays through the computer playback (automation) system. The system WMUL-FM uses is called "Rivendell Radio Automation" or just "Rivendell". (Yes, the name is a Lord of the Rings reference.) Rivendell is Free / Open Source Software that runs on CentOS 7, a free Linux distro.

The operator can use various modules to play audio, edit the playlist, preview songs, edit song metadata, and voice-track.

The system provides five different ways of playing audio, depending on the needs of the program. The RD AirPlay module contains the Main Log and the Sound Panel widget. The RD Panel module contains a larger version of the Sound Panel widget. The RD Cart Slots and RD Catch modules are not used by WMUL-FM and will not be covered in this manual.

Within RD AirPlay, the Main Log plays a sequential playlist and automatically advances to the next item. When the announcer needs to speak between songs, the log can be stopped. Most DJ shifts will use the main log.

The Sound Panel, both the small one inside RD AirPlay and the large one in RD Panel, allow the operator to play a single item, such as a jingle, at will. Talk shows and "morning zoo" type programs will often use the Sound Panel.

Two Rivendell workstations are in Studio A. The primary workstation, Rivdendell 1, is used for DJ shifts. The secondary workstation, Rivdendell 2, is for news and sports and for DJs to edit their playlists before their programs start. Rivdendell 2 is also available as a hot standby system in case Rivdendell 1 should fail.

TERMINOLOGY

The computer playback system treats all audio the same, whether it is a song, a promo, a news sound bite, etc. For simplicity, this manual will use the term "song" instead of repeatedly writing out "song, promo, sound bite...".

The software uses the term "log" when it really means "schedule" or "playlist". A log is a record of what actually aired. A schedule or playlist is a list of what is planned to air. Plans for the future are a schedule, records of the past are a log.

Reader's Notes

14.A. Cart Numbers, Groups, Cuts, and Scheduler Codes

Every song in the computer playback system is identified by a cart number. For example: the cart number for the song "Hound Dog" as performed by Koko Taylor is "350214".

A simple DJ shift may not require you to pay much attention to the cart numbers of the songs you play. However, there are some situations where knowing the cart number of a song will save you time and effort. For instance, you might frequently start your program with a particular song. It may be easier to remember (or write down) the cart number of that song than to search through all the songs with that title (or by that artist) each time.

Groups separate the music by format. "BLUES" is the group for all the Blues music. "ALTERNATIV" is the group for all Alternative music. (Group names have a limit of 10 characters. That is why there is no "E" at the end of "ALTERNATIV".) For a complete list of the various groups and their meanings, see 14.M. List of Groups on Page 35. A printed version of this list is posted in Studio A.

In addition to a group, a cart can have zero or more scheduler codes associated with it. The scheduler codes are to identify year groups (E.G. 2010s), genre crossovers, and things like "Live", "In Studio", "Vinyl", and "Local". For a complete list of scheduler codes, see 14.N. Scheduler Codes on Page 38.

Each cart consists of one or more cuts. For most carts, such as songs, there will only be a single cut. For other things, such as Legal IDs, the cart will have multiple cuts that will rotate. See 15.B.10. Carts with Multiple Cuts on Page 65.

There are also special carts that have other purposes. See 14.O. Cart Types on Page 39.

14.B. Modules Overview

Reader's Notes

The complete system consists of 15 modules. However, you will likely only need to learn four of them for a standard DJ shift or for board-operating a News or Sportscast.

Each module is a separate program that must be started from in icon on the desktop or Applications menu.

The most relavent modules are: RD AirPlay, RD Library, RD LogEdit, and RD Login. RD AirPlay contains the Main Log and Sound Panel widget and is the module that plays 99% of the music at WMUL-FM. RD AirPlay also allows you to edit today's log. RD Library is the module that allows you to search the library and edit metadata of songs. RD Log Edit allows you to edit the logs for today and future days and for special playlists (E.G. News and Sportscasts). RD Login logs you into the software.

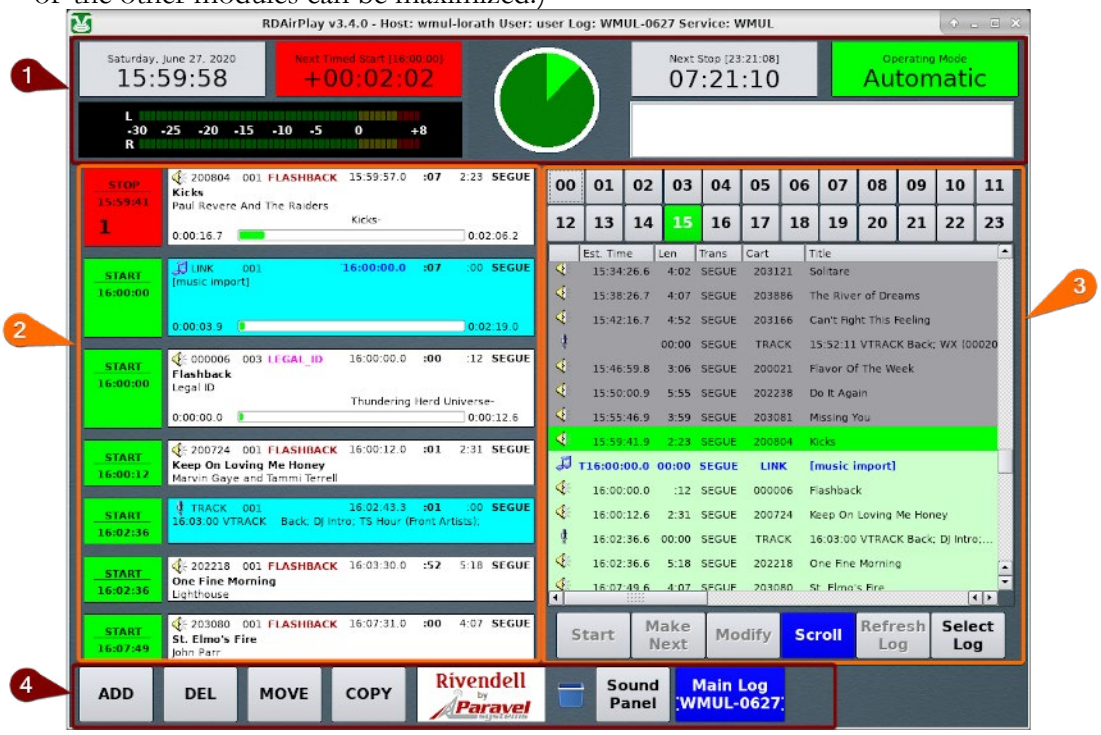
The complete functions of these modules will be explained in the following sections.

Reader's Notes

14.C. RD AirPlay Overview

Most of the audio played through Rivendell plays through RD AirPlay. This module plays the songs from the log. The operator can use RD AirPlay to toggle between automatic, live-assist, and manual modes, to edit today's playlist, to play from the Sound Panel, and to start and stop songs.

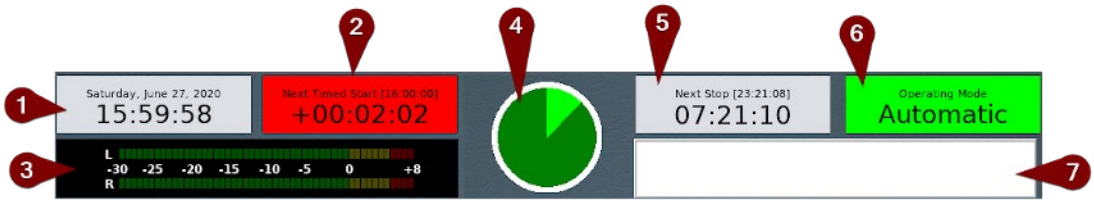
A limitation of the current version of the program, 3.4.0, is that the window size for RD AirPlay is fixed at 1024x768. It cannot be maximized. (Most of the other modules can be maximized.)



The screen consists of four areas: the top bar (1), the Button Log (2), the Sound Panel or full log (3), and the bottom bar (4).

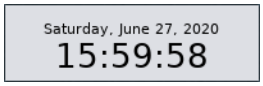
14.D. RD AirPlay Top Bar

Reader's Notes



The top bar has seven widgets: Wall Clock (1), Post Point Counter (2), Audio Meter (3), Pie Wedge (4), Next Stop Counter (5), Mode Indicator Button (6), and Label Area (6).

14.D.1. Wall Clock



Displays the current date and time. Click it to toggle between AM/PM time and 24-Hour time. Toggling the time display changes all the times displayed in RD AirPlay, not just the time displayed in the wall clock.

14.D.2. Post Point Counter

This indicator shows whether the next timed event in the log is On-Time, Early, or Late. The top line tells when the next timed start is scheduled to occur. If the next timed event will be reached within one (1) second of its scheduled time, the box will be green and will display "On Time". If there is insufficient material scheduled to reach the next scheduled start, then the next event will be Early. The box will be yellow and will display a negative time. If there is more material scheduled than will fit, the next event will be late. The box will be red and will display a positive time.

When the "Mode" is set to "Manual" or "Live Assist", this box will be gray and the numbers blank.

See 14.H. Timed Events on Page 24 and 14.J. Planning Your Program to the Clock on Page 26.

Reader's Notes

14.D.3. Audio Meter

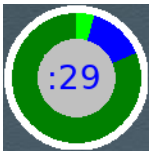
The audio meter shows the levels of the audio being played by RD AirPlay. It will show the levels of both the Main Log and the Sound Panel. This meter is scaled a bit differently than the meter on the audio console. Do not be concerned if most audio is in the red zone of this meter. It should be. Zero on this meter is approximately -12 on the audio console

Despite the differences in scale, this meter is still useful for troubleshooting. If you see levels on this meter, but not on the audio console, that probably means that the channel on the board is turned off. If you see no levels here, it probably means that there is no file playing, or that the file doesn't have any audio, or that the audio in the file is very quiet.

14.D.4. Pie Wedge

This widget displays slightly different information depending on how far along the song is. For most of the song, it displays a pie chart showing the amount of time remaining in the song. The time elapsed will be bright green and the time remaining will be dark green. When the "Mode" is "Manual" or "Live Assist", the time elapsed wedge will be red instead of bright green.

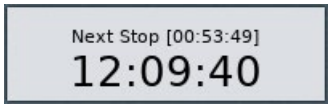
At the beginning and end of the song, it displays additional information. At the beginning of the song, an overlay counts down to the end of the talk marker (where the song lyrics start). A wedge of the pie chart also displays the talk section as a part of the song. (This only applies to songs that have talk markers set. If a song does not have talk markers set, the pie chart will go directly to the full song chart mentioned above. See 15.B.5. Editing Cart Markers on Page 58



Reader's Notes

At the end of the song an overlay counts down the last fifteen (15) seconds of the song. The ring around the main pie chart also counts down the time remaining. (Specifically, it will count down to the Segue End marker, if set, or the Cut End marker, if there are no segue markers. See 15.B.5. Editing Cart Markers on Page 58.)

14.D.5. Next Stop Counter



This counter displays two different numbers to tell the operator when the next stop in the log is. Most of the time, the next stop will be the end of the day's log. For news and sports casts, there are scheduled points in the log where the log will stop so that the announcers can go on-air.

The larger numbers on the second row count down the time remaining until the next stop. The smaller numbers above show the clock time when the stop is scheduled. In the screenshot, the next stop is scheduled for 00:53:49 (A little before 1 A.M.), which was 12 hours, 40 minutes, and 9 seconds after the screenshot was taken.

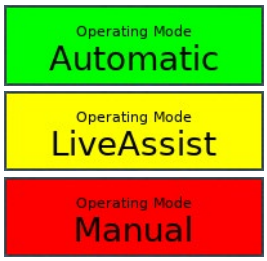
A "stop" in the log can come from three places.

1. At the end of the day's log. That log will "stop" and the next day's log will automatically be loaded and started.
2. When a song is set to a "stop" transition. See 14.P. Transitions on Page 40.
3. When the "Mode" is set to "Manual" or "Live Assist". The next stop will be the end of the current song.

When the log is stopped, the second row will display "Stopped" and the first row will display "none" for the scheduled time.

Reader's Notes

14.D.6. Mode Indicator Button



This widget displays the current automation mode. Click it to toggle between the modes. The three modes are "Automatic", "LiveAssist", and "Manual".

- **Manual:** In this mode, the system will stop after each song plays.
- **Automatic:** In this mode, the system will keep playing until it hits a "Stop" transition. See 14.P. Transitions on Page 40.
- **Live Assist:** WMUL-FM does not use this mode. Whatever you think this mode does, that's not what it does. It works similarly to manual, in that it stops after each song. The difference is when an operator clicks start on a second song. In either "Automatic" or "Manual", if the operator clicks start on a song while another song is already playing, the first song will be faded out. In "Live Assist" mode, both songs play over top of each other and full volume. The author has no idea why one would want that behaviour.

Unlike Wide Orbit, toggling from "Manual" into "Automatic" does not also start the first song. You must also click the start button on the song.

14.D.7. Label Area

This widget displays text that can be set by the log or by extenal commands. As of this writing, WMUL-FM has not decided how, or if, it will use this feature.

14.E. RD AirPlay - Main Log

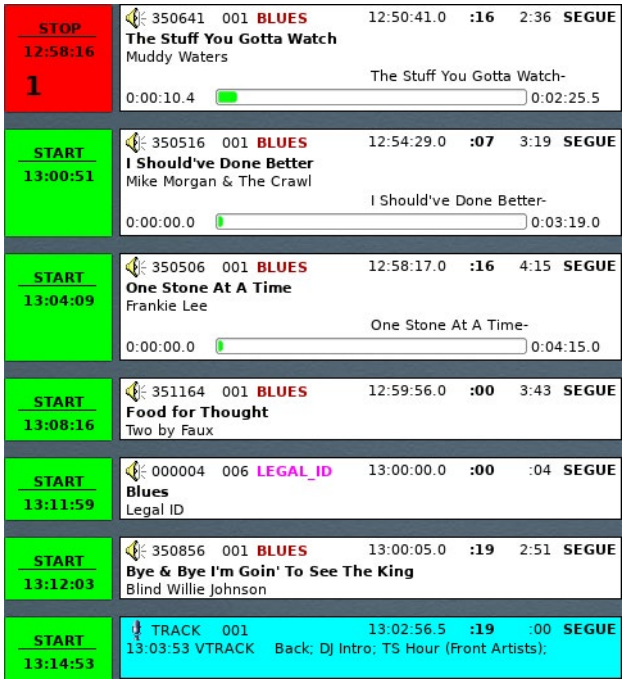
Reader's Notes

Songs from the Main Log play through the "RIVDELL" channels on the board.

The log is controlled in three places: the Button Log widget, the Full Log, and the Mode Indicator Button. The Mode Indicator Button toggles between "Automatic", "LiveAssist", and "Manual" modes. See 14.D.6. Mode Indicator Button on Page 10.

> **NOTE**
>
> Changes made to the log within RD AirPlay are not automatically saved. If the program exits, or if the log is unloaded without saving, any changes will be discarded. You can save the changes manually, see 14.E.5. The Select Log Dialog Box on Page 17.

14.E.1. Button Log



The Button Log widget takes up the left side of the window. It consists of seven (7) rows displaying the currently playing song (or the next scheduled song if the log is stopped), and the next six (6) songs. Each row consists of a button and a cart label.

Reader's Notes

1. **Start / Stop Button:** This button starts and stops this song. Its behaviour is a little different depending on whether this is the top song in the log and whether it is playing.
   a. **Top Song - Currently Playing:** Clicking this button will stop the song and the log. Even if the "Mode" is set to "Automatic", clicking this button to stop the song will also stop the log. The time displayed is the actual time the song started. The large number below the time is the actual output channel used by that cart. At WMUL-FM, that will always be "1".
   b. **Top Song - Stopped:** Clicking this button will start the song. The time will be blank.
   c. **Subsequent Song:** Clicking this button will cause this song to be moved to the top of the log and immediately start playing. If a song was already playing, it will be faded out. Any songs that were above this in the log will be jumped over. The time displayed is the estimated start time of the cart. It will be blank if the log is stopped, or if there is a stop in the log before the cart.
2. **Cart Label:** Displays various information about the cart. The first three carts have more detailed labels than the last four. Items k, l, and m are omitted from the last four rows.
   a. **Icon:** This icon indicates the type of the cart. See 14.O. Cart Types on Page 39.
   b. **Cart Number:** The cart number.
   c. **Cut Number:** The number of the cut within the cart. See 15.B.10. Carts with Multiple Cuts on Page 65
   d. **Group:** The group to which the cart belongs.
   e. **Scheduled Start Time:** For various reasons, this time will rarely match the actual start time of the song exactly. However; it will usually match within approximately ten (10) minutes.

Reader's Notes

f. **Talk Point:** How far into the song the end of the talk point is. (Where the lyrics start.) See 15.B.5. Editing Cart Markers on Page 58.

g. **Duration:** The duration of the song.

h. **Transition:** The transition type between the previosu song and this song one. See 14.P. Transitions on Page 40.

i. **Title:** Song title.

j. **Artist:** Song artist.

k. **Outcue:** The outcue field of the cut. This item only appears once the song is playing and only if the field is set for the cut.

l. **Cut Name:** The name given to this cut within the cart.

m. **Elapsed / Remaining Time Indicator:** Shows how much time has elapsed and how much time is remaining on the currently playing song. Displayed in two ways: as a horizontal bar-graph, and as numbers on either side of the graph. The green or red part represents the time that has elapsed and the white part represents the time remaining. The number on the left side is the time elapsed, the number on the right is the time remaining.

Double-click on a cart label (not the button) to bring up the "Edit Event" dialog box. See 14.E.4. The Edit Event Dialog Box on Page 16.

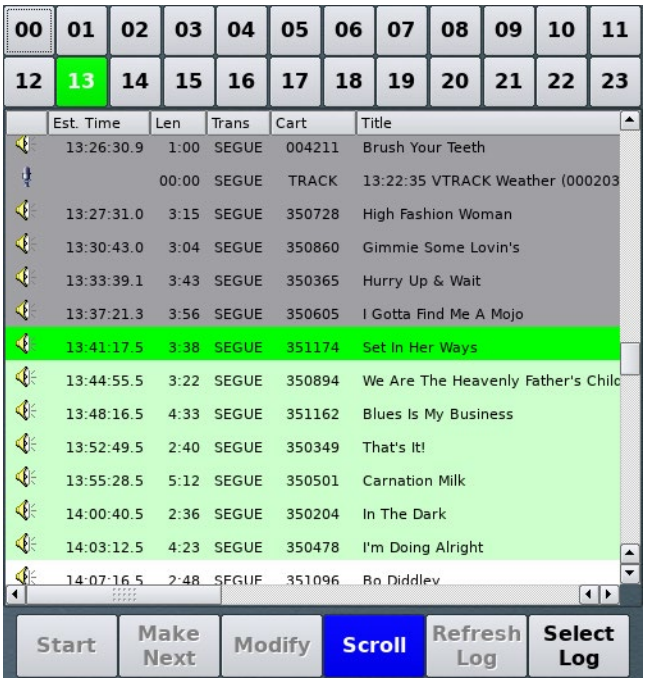
14.E.2. Using the Start Buttons on the Button Log

Clicking on one of the start buttons will start that song. If something is currently playing, that song will fade out. If the song you click on is not at the top of the Button Log, the log will skip down to that point. The songs that were ahead of it will be skipped over.

Clicking the start button of the song that is playing will cause it to fade out and stop. The next song will not start, even if the Mode is "Automatic". Click a start button to resume playback.

Reader's Notes

14.E.3. Full Log



This widget is on the right-hand side of the screen and shows the full day's log. The full log allows the operator to scroll through the day's log, edit it, and jump to a later point in the log.

If the Sound Panel is visable, click the "Main Log" button at the bottom to toggle over to the Main Log. The text on the second row is the name of the log that is loaded. (The name of the log may be too long to fit within the button. If so, the beginning and end of the name will be cut off.)

The top row of buttons allow the operator to quickly scroll the display to a given hour. The current hour will be highlighted in green, even if the Main Log is playing from another point in the log.

The body of the widget displays the log. You can scroll up and down the list to see more of the log. You can scroll horizontally to see more metadata about each entry. The fields are the same as RD Log Edit. See 15.A. RD Log Edit on Page 43.

- Entries in dark gray have been played.
- An entry in bright green is the song that is currently playing.
- The entries in light green are the ones that are displayed in the Button Log.
- Entries in white are either in the future or were skipped over.

Reader's Notes

Double-click on an entry to bring up the "Edit Event" dialog box. See 14.E.4. The Edit Event Dialog Box on Page 16.

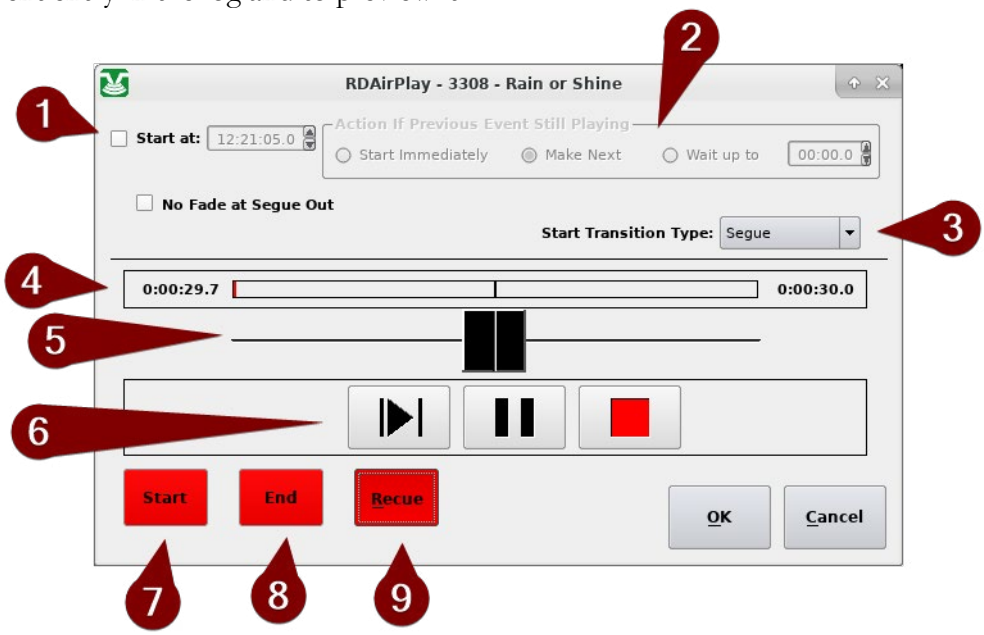
A row of six (6) buttons across the bottom of the widget allow the operator to control the log.

- **Start:** When an entry is selected in the Full Log, click this button to jump the log to that point and immediately start playing that song. Any song that is already playing will be faded out.
- **Make Next:** When an entry is selected in the Full Log, click this button to jump the log to that point. Any song that is playing will continue to play. If the log is stopped, it will remain stopped.
- **Modify:** When an entry is selected in the Full Log, click this button to bring up the "Edit Event" dialog box. See 14.E.4. The Edit Event Dialog Box on Page 16. (You can also double-click on the entry itself.)
- **Scroll:** When this button is activated (blue background), the Full Log will scroll along with the Button Log, keeping those entries on the screen.
- **Refresh Log:** If changes have been made to the currently loaded log using RD Log Edit, clicking this will load those changes into the Main Log. This function is not necessary for music logs because those logs auto refresh. Special logs may or may not have auto refresh set. See 15.A.7. Auto Refresh on Page 50.
- **Select Log:** Click this to bring up the "Select Log" dialog box. See 14.E.5. The Select Log Dialog Box on Page 17.

Reader's Notes

14.E.4. The Edit Event Dialog Box

The Edit Event dialog box allows the operator to make changes to the event entry in the log and to preview it.



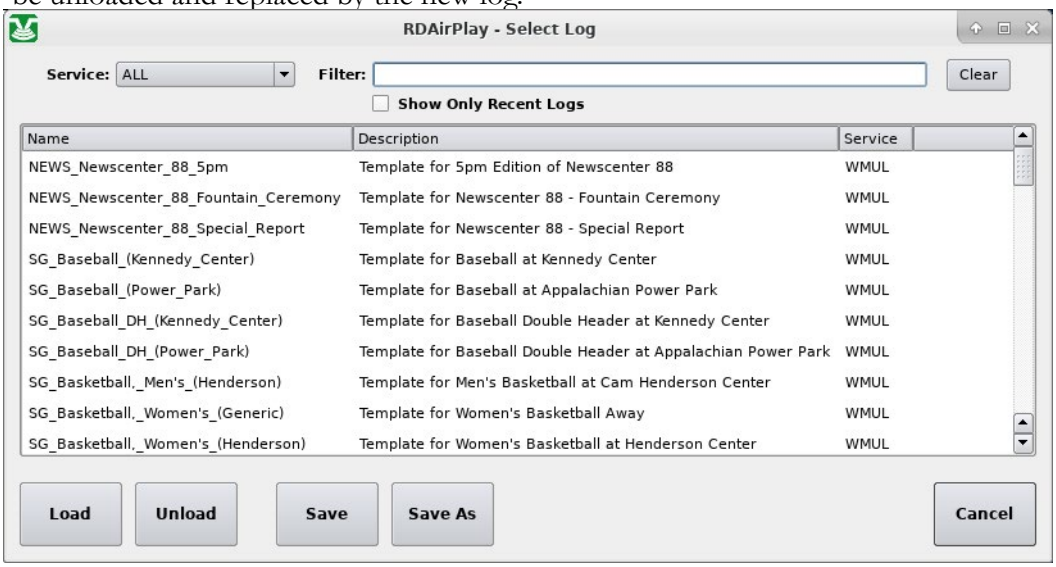
1. **Start At:** Use this control to set a timed event. See 14.H. Timed Events on Page 24.
2. **Action if Previous Event Still Playing:** How RD AirPlay should behave if the "Start At" time is reached and another event is still playing. See 14.H. Timed Events on Page 24.
3. **Start Transition Type:** Sets the transition of the song. See 14.P. Transitions on Page 40.
4. **Timeline:** Shows where the start, end, and cursor are in the timeline of the song.
5. **Cursor Control:** Moved the cursor along the timeline.
6. **Transport Controls:** Play, Pause, and Stop the preview of the song. Plays through the "P.View" channel on the board.
7. **Start:** Click this button and then click in the timeline to adjust the start point of the song. This could be used to allow a pre-recorded program to be joined in progress. Any changes apply only to this event and not to the cart itself.
8. **End:** Click this button and then click in the timeline to adjust the end point of the song. Any changes apply only to this event and not to the cart iself.

Reader's Notes

9. **Recue:** Resets the "Start" back to the beginning of the song. It does not reset the "End".

14.E.5. The Select Log Dialog Box

The Select Log dialog box allows the operator to load a different log than the one that is currently loaded or to save the current log. When loading a new log, any song that is currently playing will continue to play, but the rest of the log will be unloaded and replaced by the new log.



Scroll through this list to see all of the logs. Use the "Filter" box to search for a specific log. Check the "Show Only Recent Logs" box to show only those logs that were created recently. If you are searching for a music log, those all have the format "WMUL-MMDD", where MM is the month and DD is the day.

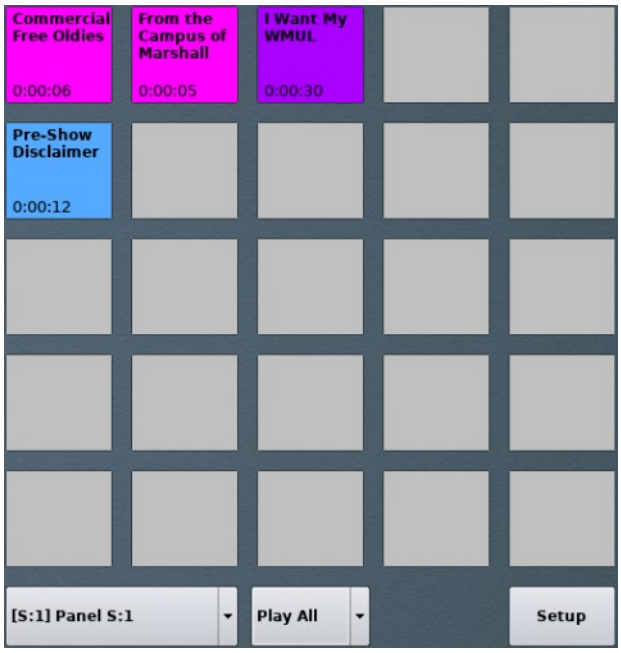
- Select a log and click "Load" to load that log.
- Click "Unload" to unload the current log and have an empty log.
- Click "Save" to save any changes to the current log that have been made within RD AirPlay.
- Click "Save As" to save the current log with a new name, including any changes.

Reader's Notes

14.F. The Sound Panel and RD Panel

The right side of the screen can display either the full main log or the Sound Panel. If the full log is visible, click the "Sound Panel" button to show the Sound Panel.

The sound panel widget displays a 5x5 grid of buttons. The operator can load each button with a different cart and play individual carts at-will. "Morning Zoo" type programs will often make use of the Sound Panel.



In the screenshot, four buttons have been loaded with carts. The remaining buttons are empty. Click the button to play the cart. Both audio carts and macro carts can be played from the Sound Panel. See 14.O. Cart Types on Page 39.

The "Play All" combobox in the bottom center changes the mode between normal play and "Play Hook" mode. You will always want this to be in "Play All" mode. WMUL-FM does not use "Play Hook" mode. If you are really curious, see 14.F.3. Play Hook Mode on Page 19.

The Sound Panel plays through the "PANEL" channel on the board.

14.F.1. Individual Sound Panels

Reader's Notes

The panel selector combobox in the lower left hand corner of the Sound Panel; allows the operator to select a different panel of buttons. Each panel has its own set of buttons. The mouse-wheel will also scroll between the different panels, even if the cursor is not over the Sound Panel.

Two types of panels are available: system, and user. A "System" panel can be used by any operator on that workstation, but only on that workstation. A "User" panel is available to that user no matter which workstation the user logs in to, but it is only available to that user.

As of this writing, WMUL-FM's workstations were configured to provide one (1) "User" panel and nine (9) "System" panels.

Each panel has a designator and a name. The designator has a letter and a number. The letter indicates whether it is a "System" panel (S) or a "User" panel (U). The name is something that can be changed. A complete example would be "[S:1] Demo Panel".

Click the "Setup" button and then click the panel selector combobox to edit the name.

14.F.2 RD Panel

RD Panel is a larger version of the Sound Panel widget in RD AirPlay. Adding carts, editing buttons, and playing buttons all work the same way. Its panels are independent of the panels in RD AirPlay, you cannot import a panel from one program into the other. It displays a grid of buttons 9 columns by 7 rows. Both programs can run at the same time. If you need a lot of buttons, you can load some in RD Panel and some in the Sound Panel in RD AirPlay. Both play through the "Panel" channel on the board.

14.F.3. Play Hook Mode

Play Hook mode is used for audience research. Each song has a "hook" set in its markers. This will be the most identifiable part of the song. (E.G. The operatic section of "Bohemian Rhapsody".) This will then be played for an focus group so that they can answer questions about how much they like the song.

Reader's Notes

14.G. Editing the Log and Sound Panel

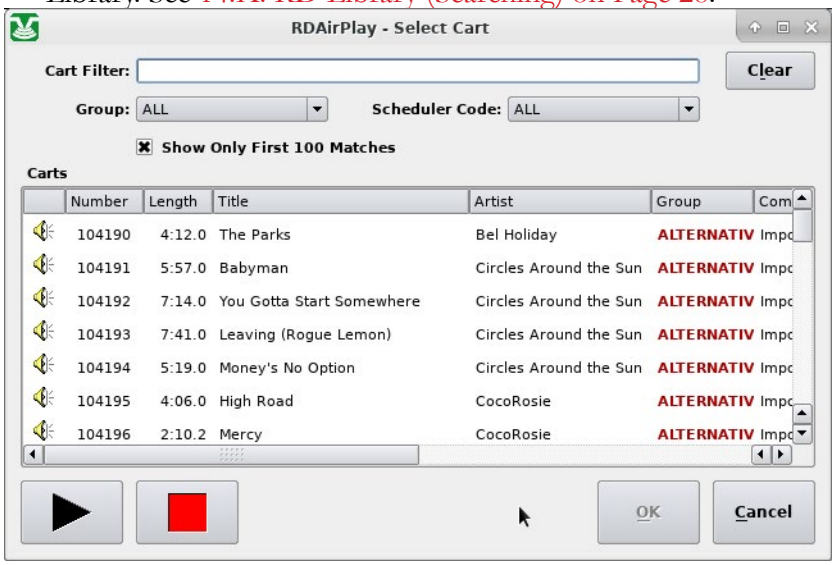
Using the buttons in the bottom button bar in RD AirPlay, one can edit the Log and Sound Panel by adding, removing, copying, and deleting songs. Songs can also be added by draging them in from RD Library. Songs can be copied by dragging and dropping within RD AirPlay.

14.G.1. Adding a Song to the Log

There are two ways to add a song: using the "Add" button at the bottom, or dragging a song in from RD Library.

14.G.1.a. Using the "Add" Button

1. Click the "Add" button. The button will begin blinking purple and the "Select Cart" dialog box will appear. This is a miniature version of RD Library. See 14.K. RD Library (Searching) on Page 28.



2. Select the cart you want.
3. Click "OK". The "Select Cart" dialog box will disappear, the "Add" button will begin blinking yellow, the start buttons in the Button Log will turn yellow and display "Where?", and the buttons in the Sound Panel will turn yellow. In the Main Log widget, the bottom buttons will be replaced with a single yellow "Where?" button.
4. To insert the song in the Button Log, click the "Where?" button of a song. The newly selected song will be inserted in that location. The song that you clicked on will be pushed down.

Reader's Notes

5. To insert the song in the Main Log, select a song in the Main Log and then click the "Where?" button under the Main Log. The newly selected song will be inserted in that location. The song that you selected will be pushed down.
6. To add the song to a Sound Panel button, click the yellow button where you want to add the song. Any song that was already on that button will be replaced.
7. To cancel, click the blinking "Add" button.

14.G.1.b. Using RD Library

1. Use RD Library to find the song you want.
2. Make certain "Allow Cart Dragging" is checked in RD Library.
3. Select the song in RD Library.
4. Drag and drop it onto a song in RD AirPlay. You may drop it on either the Button Log, the Main Log, or Sound Panel. The newly selected song will be inserted in that location. The song that you dropped it on will be pushed down. Any song that was already on a Sound Panel button will be replaced. If you drop it on the Button Log, you must drop it on the cart label, not on the start button.

14.G.2. Changing a Sound Panel Button

1. Click the "Setup" button in the lower right-hand corner of the Sound Panel. It will begin blinking.
2. Click on the button that you wish to change. The "Edit Button" dialog box will appear.

3. Click the "Set Cart" button to bring up the "Select Cart" dialog box. This is the same as when clicking the "Add" button.
4. Select the cart you want.
5. Click "OK". The cart number and title will be displayed in the "Cart" line of the "Edit Button" dialog.
6. You may enter a label for this button in the "Label" box. You may leave the lable box blank and the title of the cart will be used.

Reader's Notes

7. Click the "Clear" button to remove the cart from the button.
8. Click the "Set Color" button to set a color for the button.

14.G.3. Deleting a Song

1. Click the "Del" button. The button will begin blinking purple, the start buttons in the Button Log will turn purple and display "Delete?", and the buttons on the Sound Panel will turn purple. In the Main Log widget, the bottom buttons will be replaced with a single purple "Delete?" button.
2. To delete a song from the Button Log, click the "Delete?" button. That song will be deleted and the "Del" button will return to its normal light gray.
3. To delete a song from the Main Log, select the song in the Main Log and then click the "Delete?" button under the Main Log. That song will be deleted and the "Del" button will return to its normal light gray.
4. To delete a button from the Sound Panel, click that button. The button will be cleared and its color will return to the normal light gray. The "Del" button will also return to its normal light gray.
5. To cancel, click the blinking "Del" button.

You may also drag and drop the trash can icon onto a song or button to delete it.

14.G.4. Moving a Song

1. Click the "Move" button. The button will begin blinking purple and the start buttons in the Button Log will turn purple and display "Move?". In the Main Log widget, the bottom buttons will be replaced with a single purple "Move?" button.
2. To select a song from the Button Log, click its purple "Move?" button.
3. To select a song from the Main Log, select it in the Main Log and then click the "Move?" button under the main Log.
4. The "Move" button will begin blinking yellow, the start buttons in the Button Log will turn yellow and display "To?". In the Main Log widget, the button will turn yellow and display "To?".
5. To insert the song in the Button Log, click the "To?" button of a song. The song will be inserted in that location. The song that you clicked on will be pushed down.

Reader's Notes

6. To insert the song in the Main Log, select a song in the Main Log and then click the "To?" button under the Main Log. The song will be inserted in that location. The song that you selected will be pushed down.
7. To cancel, click the blinking "Move" button.

Only songs on the Log can be moved. Sound Panel buttons cannot be either the source or destination of a move.

> NOTE
>
> You cannot move songs that have already played. If you want to re-air a song that has already played, you may copy the song.
> (Just be careful not to play too many songs by the same artist)
>
> You also cannot move a song to a point in the playlist that has already passed.

14.G.5. Copying a Song

Copying a song, using the "Copy" button, is the largely the same as moving, except you end up with two copies of the song in the playlist.

You may drag and drop a cart in the Button Log or the Sound Panel to make a copy.

The exception is that Voice Tracks cannot be copied, but can be moved.

> REMEMBER
>
> The station must not play, within a three-hour period, more than three selections by the same artist, and not more than two in a row.
>
> Use the Main Log widget to look at the hours before you and the hours after you. Make certain that the artists you select will not cause WMUL-FM to violate the above rule.
>
> See 4.B.2. "Sound Recording Performance Complement" Policy in Volume I complete details.

Reader's Notes

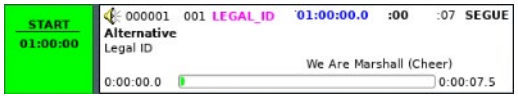
14.H. Timed Events

A timed event tells the computer playback system when to jump through the playlist and "catch up". The top of each hour has a timed event. When the computer clock reaches the top of each hour, the computer will move the playlist to the next Legal ID. It jumps over any songs between the current song and the Legal ID.

- **Make Next:** When the computer hits a Make Next, it finishes the current song before playing the Legal ID.
- **Start Immediately:** When the computer hits a Start Immediately, it stops the current song and plays the Legal ID immediately.
- **Wait Up To:** A hybrid between the other two. When the computer hits a Wait Up To, it will allow other items to continue playing, up to a set duration (E.G. 5 minutes). After that duration, it will start the item immediately.

WMUL-FM mostly uses "Make Next"s. A "Start Immediately" is used at 5 P.M. to start Newscenter 88 precisely at 5:00:00 PM. WMUL-FM does not use a "Wait Up To" as of this writing.

A timed event is shown on the Button Log by the scheduled start time being dark blue and in bold. In the Main Log, both the scheduled start time and the estimated start time are dark blue, in bold, and begin with a "T".
E.G. "T01:00:00.0".



These displays do not distinguish between "Make Next" events and "Start Immediately" events. You have to open up the "Edit Event" dialog box to see which it is. See 14.E.4. The Edit Event Dialog Box on Page 16..

TECHNICAL NOTE

Setting sync points allows the station to over-schedule each hour without delaying the next hour of programming. The station intentionally over-schedules each hour. If one of the songs scheduled for that hour fails to play, the hour will not be short.

14.I. Jumping the Log

Reader's Notes

Jumping the log allows you to quickly move the log from one point to another. Jumping can move the log by hours. It is also possible to jump back to an earlier time in the log. Board-Operators for newscasts and sportscasts will jump the log on Rivendell 1 before resuming music programming.

The procedure for jumping to another day's log has a couple more steps than if you are jumping the log to a later time the same day.

14.I.1. Jumping Within Today's Log

1. Select the Main Log widget on the right side.
2. Scroll the log until the point to which you wish to jump is visible.
3. Select the song that you wish to jump to in the Main Log.
4. Click the "Make Next" button below the Main Log. That song will now be next in the Button Log.
5. If you are in a time pinch, you can click the "Start" button instead of "Make Next" to immediately start the song.

14.I.2. Jumping to Another Day's Log

If the log needs to be jumped to another day's log, (E.G. If a sportscast ran past midnight) then you will have to load that day's log before jumping to the correct point.

1. Select the Main Log widget on the right side.
2. Click the "Select Log" button. The "Select Log" dialog box will appear. See 14.E.5. The Select Log Dialog Box on Page 17.
3. Select the day's log that you wish to jump into.
4. Click the "Load" button. The selected log will be loaded and the first line will be made next.
5. If you need to jump further along in the log, continue at step 2 in 14.I.1. Jumping Within Today's Log on Page 25.

14.I.3. Jumping Back in Today's Log

The system will ordinarily not let you jump back to a song that has already played. You can get around this by reloading today's log. Follow the instructions in 14.I.2. Jumping to Another Day's Log on Page 25 and select today's log. It will reload and let you jump back to an earlier point in the log.

Reader's Notes

14.J. Planning Your Program to the Clock

Whether your DJ shift is one hour or more, the computer schedules music an hour at a time. (14.H. Timed Events on Page 24) When you edit the log to create the music mix for your program, you must keep in mind both the clock for your format, and the top of the next hour.

Various announcements, live and pre-recorded, are scheduled throughout the hour. You are required to air these announcements near the scheduled time. Most or all these will be listed in the log as notes. There may also be a printed clock or schedule showing when the announcements should air. Add and remove songs as needed to keep the announcements close to the scheduled time. A good rule of thumb is: every time you add a song to the playlist, remove another song next to it.

The top of the next hour is a fixed point in the schedule. The computer will not let you move it. When the top of the hour hits, the computer will automatically skip over any songs scheduled between the current song and the Legal ID. Keep this in mind when editing your log. You do not want to waste time adding songs to the playlist, only to have the computer jump over them at the end of the hour.

Use the "Post Point Counter" on the top bar. (14.D.2. Post Point Counter on Page 7) It displays the difference between how much time is remaining until the next hour and the amount of music scheduled for that time.

A negative number means that there is not enough music scheduled to reach the top of the hour. If no additional songs are added, the computer will advance to the next hour early.

A positive number means that more music is scheduled than time remaining. At the end of the hour, the computer will jump over any remaining songs and move to the next timed event. If the next timed event is a "Make Next", then song that is already playing will be allowed to finish. If the next timed event is a "Start Immediately", then the song will be stopped at the top of the hour.

Example: It is 53 minutes, 0 seconds in the hour. Seven minutes remain in the hour. A 4:33 song, and a 3:52 song is scheduled for a total of 8 minutes, 25 seconds of music. The back-timer will display "+00:01:25". If one were to delete the 3:52 song, the back-timer would change to display "-00:02:27".

Throughout your show, keep an eye on the back-timer. Add or delete songs as needed to keep the timer reading roughly between -1:00 and +3:00. If the number is larger than the final song you have scheduled, it will skip over that song.

ADVANCED TOPIC

This manual refers to the top of the hour and the log timed events as being one and the same. That is a simplification.

WMUL-FM's music schedules are configured to place a timed event at the top of each hour. However, it is possible to set a timed event any time in the hour and to set multiple timed events in an hour.

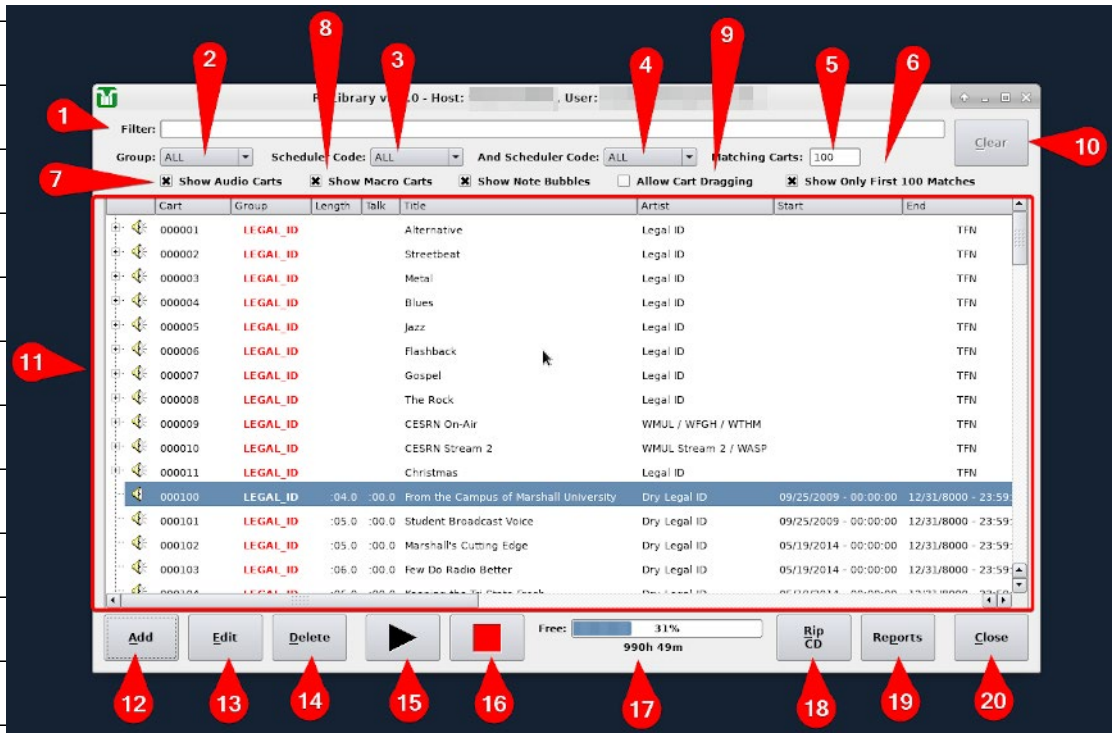
It is also possible that the top of the hour is not a timed event. When this happens, it is almost always a computer error. Fill out an equipment discrepency form. See 5.F.4. Equipment Discrepency Forms in Volume I.

Reader's Notes

Reader's Notes

14.K. RD Library (Searching)

RD Library allows the user to search and manage the library of carts. In addition to searching, the software allows the user to add, delete, preview, and edit carts. There is also a function to create a text file containing all the metadata of all the carts.



1. **Filter Bar:** Type here to search the library.
2. **Groups Box:** Use this box to search a particular Rivendell group or all groups.
3. **Scheduler Code:** Use this box to search for a particular scheduler code. See 14.N. Scheduler Codes on Page 38.
4. **And Scheduler Code:** Use this box to search for a second scheduler code. The search is an "and" search. It will return only those songs that have both scheduler codes.
5. **Matching Carts:** Displays a count of how many carts match the search. It will max out at 100 if "Show Only First 100 Matches" (6) is checked.
6. **Show Only First 100 Matches:** When this box is checked, RD Library will show only the first 100 matches. It is recommended to keep this checked. The search is greatly slowed down when this box is unchecked.

Reader's Notes

7. **Show Audio Carts:** Whether or not to include audio carts in search results.
8. **Show Macro Carts:** Whether or not to include macro carts in search results. See 14.O. Cart Types on Page 39.
9. **Allow Cart Dragging:** Whether or not to allow carts to be drag-and-dropped into playback modules such as RD AirPlay.
10. **Clear:** Clears the "Filter" field, while leaving all other search options alone.
11. **Search Results:** All the carts that match the search entered into fields 1-8. See 14.K.2. Searching on Page 33.
12. **Add:** Create a new cart. See 15.B.2. Adding a Cart from Within Rivendell on Page 51.
13. **Edit:** Edit the selected cart. See 15.B.3. Editing Cart Metadata on Page 53.
14. **Delete:** Deletes the selected cart. Be careful, there is no undo. See 15.B.8. Removing Audio on Page 64.

> WARNING!
> Deleting audio is permanent! There is no undo.

15. **Play:** Plays the selected cart through the preview channel. While the cart is playing, if you select another cart, the original cart will stop and the new one will start.
16. **Stop:** Stops any carts playing through RD Library.
17. **Free Space Meter:** Shows how much free space is remaining for audio on the hard drive. Displayed as a percentage, a bar graph, and a time total. In the screen shot 990 hours, 49 minutes of space remain, which is 31% of the total space.
18. **Rip CD:** Allows a CD to be ripped directly into Rivendell. Since that does not permit the audio to be edited for language before ingesting, WMUL-FM does not use this function. See 15.C. Ingesting New Audio with Adobe Audition on Page 68 for instructions on how to ingest and edit CDs with Adobe Audition.
19. **Reports:** Generates a text listing of all the carts and cuts in the library. See 15.B.11. RD Library Reports on Page 67.
20. **Close:** Closes RD Library.

Reader's Notes

14.K.1. Metadata Fields

Carts have the following metadata fields. Those fields that are searchable are prefixed with an asterisk (*). Many of the fields are self-explanatory, but some bear explanation. Some fields have different meanings if the song was imported over from WMUL-FM's old computer playback system, Wide Orbit Automation for Radio (WOAFR).

14.K.1.a. Cart Level Metadata Fields

- ***Type:** Either audio or macro. See 14.O. Cart Types on Page 39.
- ***Cart (Number):** 14.A. Cart Numbers, Groups, Cuts, and Scheduler Codes on Page 4.
- **Group:** See 14.A. Cart Numbers, Groups, Cuts, and Scheduler Codes on Page 4 and 14.M. List of Groups on Page 35.
- **Length:** For carts with multiple cuts, this will be the average of the individual cuts.
- **Talk:** How far into the song the lyrics start. See 15.B.5. Editing Cart Markers on Page 58.
- ***Title:**
  - **Songs:** The song title. Do not include featured artists in the title, those belong with the artist.
  - **Promos / PSAs:** The individual title of the promo or PSA. Do not include the words "Promo" or "PSA", that will be obvious because it is in a promo or PSA group.
  - **Program Imaging:** The type and role of the audio. E.G. "Game Intro" or "Rejoin".
  - **Programs:** The individual title of that edition of the program or the episode date. E.G. "Interview with Doc Holiday" or "September 29, 2016".
- ***Artist:**
  - **Songs:** The artist of the song, including any featured artists. E.G. "Akon ft Enimem".
  - **Promo:** The subject of the promo. A general station promo would just be titled "WMUL-FM". A promo for sports would be titled "WMUL-FM Sports".
  - **PSA:** The general topic of the PSA. E.G. "Drinking and Driving" or "Environmentalism".

Reader's Notes

    - **Program Imaging:** The master title of the program.
      E.G. "Baseball" or "Newscenter 88"
    - **Programs:** The master title of the program.
      E.G. "Herd Roundup".
- **Start:** The date and time before which this cut is not allowed to play. See 15.B.1. Start and End Dates on Page 51.
- **End:** The date and time after which this cut is not allowed to play. See 15.B.1. Start and End Dates on Page 51.
- ***Album:**
- ***Label:**
- ***Composer:** For carts that were imported from WOAFR, this field records the original WOAFR cut number. This information is useful for two reasons: it allows us to track a song back to who ingested it, and it allows a user to search for a item by the WOAFR cut number, if it is known.
- ***Conductor:**
- ***Publisher:**
- ***Client:** For carts that were ingested directly into Rivendell, this will have the name of the person who ingested it.
- ***Agency:**
- ***User Defined:**
- **Cuts:** The number of cuts within the cart.
- **Last Cut Played:** Supposed to show which of the cuts within the cart played most recently. As of Rivendell 3.4.0, this does not seem to work. It always displays "0".
- **Enforce Length:** When this is selected, the cart will be time-scaled to match the value in "Forced Length".
- **Forced Length:** When "Enforce Length" is selected, this is the length to which the cart will be time-scaled.
- **Preserve Pitch:** Seems to be related to the "Enforce Length" and "Forced Length" metadata, but there does not seem to be any way to set this.
- **Length Deviation:** For carts with multiple cuts, this is a measure of how different the lengths of the individual cuts are from each other.
- **Owner:** It is not clear what this field is for. It is blank on all of WMUL-FM's carts and there does not seem to be any place to edit this.
- **Year Released:**

Reader's Notes

- **Usage:** A meta-data field to describe whether the cut is a featured item, or a program open, etc. WMUL-FM does not use this field.
- ***Scheduler Codes:** See 14.N. Scheduler Codes on Page 38.
- **Song ID:** Another meta-data field that WMUL-FM does not use.
- **Beats per minute:**
- **Notes:** A bulk text field.

14.K.1.b. Cut Level Metadata Fields

- ***Description:**
- ***Outcue:**
  - **Songs:** Whether the song ends Cold or Fade.
- ***ISCI Code:** A code for uniquely identifying commercials.
- **ISRC:** A code for uniquely idenitfying songs. It is not used by WMUL-FM.
- **Source:** The username that ingested or created the cut.
- **Ingest:** The machine name and date and timestamp when the cut was ingested or created.
- **Last Played:**
- **Number of Plays:**
- **Cut is Evergreen:** See 15.B.4.a. Cut Dayparting on Page 56.
- **Weight (or) Order :** See 15.B.10.a. Cut Rotation on Page 65.
- **AirDate / Time:** See 15.B.1. Start and End Dates on Page 51.
- **Daypart:** See 15.B.4.a. Cut Dayparting on Page 56.
- **Day of the Week:** See 15.B.4.a. Cut Dayparting on Page 56.
- **Name:** The actual file name of the cut on the file system. Always takes the format of a six digit cart number, an underscore, and a three digit cut number. E.G. 000100_001 for the first cut in cart 000100.
- **SHA1:** A mathematical hash value of the audio file. Used by the system to make certain that the file hasn't been corrupted or tampered with from outside the system. (I think).

14.K.2. Searching

Reader's Notes

RD Library gives you access to the computer's entire music library. You can search for a specific song or just browse everything by a particular artist or category. RD Library will match text in the filter box against any of the following meta-data fields:

Cart Number	Composer	User Defined
Title	Conductor	Cut Description
Artist	Publisher	Cut Outcue
Album	Client	Cut ISCI Code
Label	Agency	

The search results include partial and full matches in any of those fields. Searches are not case-sensitive.

Searching for "Queen" returns the artists "Queen", "Queensryche", and "Queens of the Stone Age" and the song "Dancing Queen".

While it is not possible to search just within a specific meta-data field, you can narrow the search to a specific group and / or scheduler code using the Group (2) and Scheduler Code (3 and 4) boxes. The search is an "and" search. It will only return results that match all of the search fields.

The search results box (11) displays 23 columns of metadata about each cart. You can click any of the column headers to sort the results by that column. Click again to sort in reverse order. The default is to sort ascendingly by Cart Number. If you have limited the number of search results to 100 (6), it will only sort those 100 results. It will not change to the bottom 100 results.

- **Cart Icon:** The first column will show either an icon of a little speaker or a cog. The little speaker  is for audio carts. The cog  is for macro carts.
- **Multiple Cuts:** Within the first column, immediately to the left of the icon, may be a + symbol. This indicates that the cart has multiple cuts. Click the plus to expand it to show the individual cuts.

Reader's Notes

14.L. Previewing Audio Before Playback

It is possible to preview almost any piece of audio from within the modules. Previewing allows one to hear a song before it plays over the air. Audio can be previewed from the Button Log and Main Log in RD AirPlay, as well as from RD Library and RD Log Edit. It is even possible to preview an song that is already playing. One may be planning to speak after the current song, but be uncertain of how it ends. One can preview the song to find out the ending.

1. Place the Rivendell preview (P.View) channel on the audio console in cue. One channel on the console serves both of the Rivendell workstations in Studio A. Make certain that the channel is off by pressing the yellow off button at the bottom of the channel.
2. In RD AirPlay: Double-click on the song that you want to preview. The "Edit Event" dialog box will appear. You can use this to preview the song. See 14.E.4. The Edit Event Dialog Box on Page 16.
3. In RD Library or RD Log Edit: Select the song you want to preview and click the play button at the bottom of the screen. See 15.A. RD Log Edit on Page 43 and 14.K. RD Library (Searching) on Page 28.

14.M. List of Groups

This table lists the group names, explains their meaning, shows the cart number range assigned to that group, and how many total carts are available in that range.

Group Name	Description	Starting Number	Ending Number	Count
LEGAL_ID	Legal IDs	000,001	000,199	199
BED	Music Beds	000,200	000,299	100
SWEEPER	Generic Sweepers	000,300	000,499	200
ALT_IMAGE	Alternative Imaging	000,500	000,699	200
STBT_IMAGE	Streetbeat Imaging	000,700	000,899	200
FLA_IMAGE	Flashback Imaging	000,900	001,099	200
MTL_IMAGE	Metal Imaging	001,100	001,299	200
XMAS_IMAGE	Christmas Imaging	001,300	001,499	200
BLU_IMAGE	Blues Imaging	001,500	001,699	200
JAZZ_IMAGE	Jazz Imaging	001,700	001,899	200
GOSP_IMAGE	Gospel Imaging	001,900	002,099	200
ROCK_IMAGE	The Rock Imaging	002,100	002,299	200
PRO_30	Promos - 30 Seconds	003,000	003,299	300
PRO_60	Promos - 60 Seconds	003,300	003,599	300
PRO_ODD	Promos - Odd Length	003,600	003,699	100
PRO_HOURLY	Promos - Hourly	003,700	003,799	100
PSA_H_30	PSAs - In House - 30 Seconds	004,000	004,199	200
PSA_H_60	PSAs - In House - 60 Seconds	004,200	004,399	200
PSA_H_ODD	PSAs - In House - Odd Length	004,400	004,499	100
PSA_E_30	PSAs - External - 30 Seconds	005,000	005,299	300
PSA_E_60	PSAs - External - 60 Seconds	005,300	005,599	300
PSA_E_ODD	PSAs - External - Odd Length	005,600	005,699	100
ROTATORS	Rotators	006,000	006,099	100
WX_PREDAWN	Weather - Pre-Dawn (Mid-6am)	006,500	006,509	10
WX_MORNING	Weather - Morning (6am-Noon)	006,510	006,519	10
WX_AFTERNN	Weather - Afternoon (Noon-5pm)	006,520	006,529	10
WX_EVENING	Weather - Evening (5pm - Mid)	006,530	006,539	10
GOSP_BULL	Gospel Bulletin Board	006,600	006,609	10
PROGRAMS	Full Length Programs	007,000	007,999	1,000

Group Name	Description	Starting Number	Ending Number	Count
NEWS_IMAGE	News Imaging	008,000	008,099	100
NEWS	News Elements	008,100	008,999	900
SG_MISC	Sports Game - Miscellaneous	020,000	020,999	1,000
SG_SOCC	Sports Game - Soccer - Both	021,000	021,099	100
SG_SOCC_M	Sports Game - Soccer - Men's	021,100	021,299	200
SG_SOCC_W	Sports Game - Soccer - Women's	021,300	021,499	200
SG_FOOT	Sports Game - Football	021,500	021,999	500
SG_VOLLEY	Sports Game - Volleyball	022,000	022,499	500
SG_BASK	Sports Game - Basketball - Both	022,500	022,599	100
SG_BASK_M	Sports Game - Basketball - Men's	022,600	022,799	200
SG_BASK_W	Sports Game - Basketball - Women's	022,800	022,999	200
SG_BAS_SOF	Sports Game - Baseball and Softball	023,000	023,199	200
SG_BASE	Sports Game - Baseball	023,200	023,399	200
SG_SOFT	Sports Game - Softball	023,400	023,499	200
SG_REJOIN	Sports Game - Rejoins	023,600	023,799	200
SP_MISC	Sports Program - Miscellaneous	030,000	030,999	1,000
SP_SVIEW	Sports Program - Sportsview	031,000	031,199	200
SP_SBUZZ	Sports Program - Sportsbuzz	031,200	031,399	200
SP_HRU	Sports Program - Herd Roundup	031,400	031,599	200
SP_FRINITE	Sports Program - Friday Night	031,600	031,799	200
SP_BSKNITE	Sports Program - Basketball Friday Night	031,800	031,999	200
SP_BASNITE	Sports Program - Baseball Friday Night	032,000	032,199	200
SP_IN_CUSA	Sports Program - Inside Conference USA	032,200	032,399	200
MISC	Miscellaneous	040,000	049,999	10,000
DJ_IMAGE	DJ Imaging	060,000	079,999	20,000
ALTERNATIV	Alternative	100,000	129,999	30,000
STREETBEAT	Streetbeat	150,000	179,999	30,000
FLASHBACK	Flashback	200,000	229,999	30,000
METAL	Metal	250,000	279,999	30,000

Group Name	Description	Starting Number	Ending Number	Count
CHRISTMAS	Christmas	300,000	329,999	30,000
BLUES	Blues	350,000	379,999	30,000
JAZZ	Jazz	400,000	429,999	30,000
GOSPEL	Gospel	450,000	479,999	30,000
RK_APOLGTX	The Rock - Apologetix	500,000	504,999	5,000
RK_CONTEMP	The Rock - Contemporary	505,000	509,999	5,000
RK_CLS_MTL	The Rock - Classic Metal	510,000	514,999	5,000
RK_LIVE	The Rock - Live	515,000	519,999	5,000
RK_METAL	The Rock - Metal	520,000	524,999	5,000
RK_PRAISE	The Rock - Praise and Worship	525,000	529,999	5,000
RK_ROCK	The Rock - Rock	530,000	534,999	5,000
RK_URBAN	The Rock - Urban	535,000	539,999	5,000
AUTOSPOT	Autospot	960,000	969,999	10,000
MACRO	Macros	970,000	979,999	10,000
VTRACK	Voice-Tracks	980,000	989,999	10,000
TEMP	Temporary	990,000	999,999	10,000

14.N. Scheduler Codes

Scheduler codes provide a second method of "tagging" carts. Each cart can have zero or more scheduler codes.

Code	Description
1920s	Published Between 1920-1929
1930s	Published Between 1930-1939
1940s	Published Between 1940-1949
1950s	Published Between 1950-1959
1960s	Published Between 1960-1969
1970s	Published Between 1970-1979
1980s	Published Between 1980-1989
1990s	Published Between 1990-1999
2000s	Published Between 2000-2009
2010s	Published Between 2010-2014
2015s	Published Between 2015-2019
2020	Published In 2020
2021	Published In 2021
Alternative	Alternative - Crossover
Streetbeat	Streetbeat - Crossover
Flashback	Flashback - Crossover
Metal	Metal - Crossover
Christmas	Christmas - Crossover
Blues	Blues - Crossover
Jazz	Jazz - Crossover
Gospel	Gospel - Crossover
The Rock	The Rock - Crossover
Electronic	Electronica
Local	Local Artists
Vinyl	Dubbed from Vinyl
Live	Live Performances
InStudio	Live in the WMUL-FM Studios
Fiction	Long-Form Fiction
Documentry	Long-Form Documentary

14.O. Cart Types

Reader's Notes

There are several types of carts that will appear in the log. Each has their own icon. Only Audio Carts, Macro Carts, and Voice Track Audio Carts appear in RD Library.

- **Audio Cart:** The majority of carts are audio carts. They play audio such as songs, promos, and sound bites. These carts use a yellow speaker icon. 
- **Macro Cart:** Macro carts contain lists of commands to the system. An example is the cart that Basketball Friday Night in West Virginia uses to fire a relay that signals affiliates to take a break. A full explanation of how to write macros is beyond the scope of this manual and most operators will never need to write one. Information may be found in the Rivendell Operating Guide, 3.4.0. These carts use a gray gear icon. 
- **Note Marker:** These are messages and reminders to the DJ about actions that need to be taken, or announcements that need to be made. Due to space constraints, the information may be heavily abbreviated. These carts use a pencil and notepad icon. 
- **Track Marker:** These note where voice-tracks can be recorded. See voice-tracking on page XX. These carts use a microphone icon. 
- **Voice Track Audio Cart:** These are voice-tracks that have been recorded. These carts use a red speaker icon.
- **Chain To:** These appear at the end of the log and indicat what log should be loaded next. These are used at the end of each day to load the next day's log.

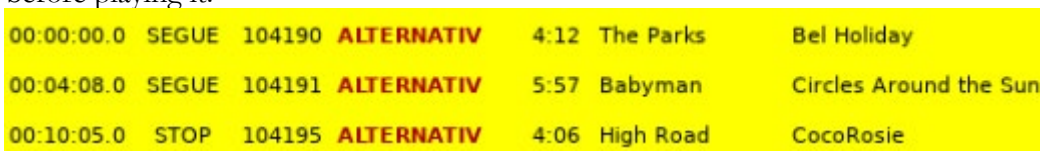
Reader's Notes

14.P. Transitions

Each song in the log has a transition that controls how it starts playing.

- **Segue:** The default. This song will begin playing when the previous song reaches its "Segue Start" marker. This should produce a pleasant overlap of two songs. See 15.B.5. Editing Cart Markers on Page 58.
- **Play:** This song will begin playing only when the previous song has finished completely and reached its "Cut End" marker.
- **Stop:** This song will not begin playing until the operator clicks its "Start" button. These transitions are used during news and sports logs to automatically stop the playlist after each break.

Note that the transition assigned to a song affects how that song starts playing. In the screenshot, the songs "The Parks" and "Babyman" will play automatically. The song "High Road" has a stop transition and the system will stop before playing it.



14.Q. Restarting the Software

Reader's Notes

It may be necessary to restart RD AirPlay if the software begins misbehaving. When that happens, you will need to transition back and forth between another audio source, usually another workstation running Rivendell.

1. Start RD AirPlay on the spare workstation.
2. Load the correct log and jump it to the correct place. See 14.I. Jumping the Log on Page 25.
3. Make certain that the correct audio channels are turned on and in program.
4. Toggle the main workstation to "Manual" mode.
5. When the song ends on the main workstation, start the next song on the spare workstation.
6. Turn off the channel for the main workstation on the board.
7. Close RD AirPlay on the main workstation. The software will ask for a password. The password is the usual one.
8. Re-open RD AirPlay on the main workstation.
9. Load the correct log and jump it to the correct place.
10. Turn the main workstation channel back on on the board
11. When the song ends on the spare workstation, start the next song on the main workstation.
12. Turn off the spare workstation channel on the board.

NOTE

WMUL-FM's previous software, WOAFR, had a feature that would keep playing the most recent song when restarting the software. Rivendell does not have this feature. It is necessary to have a second workstation to perform this restart.

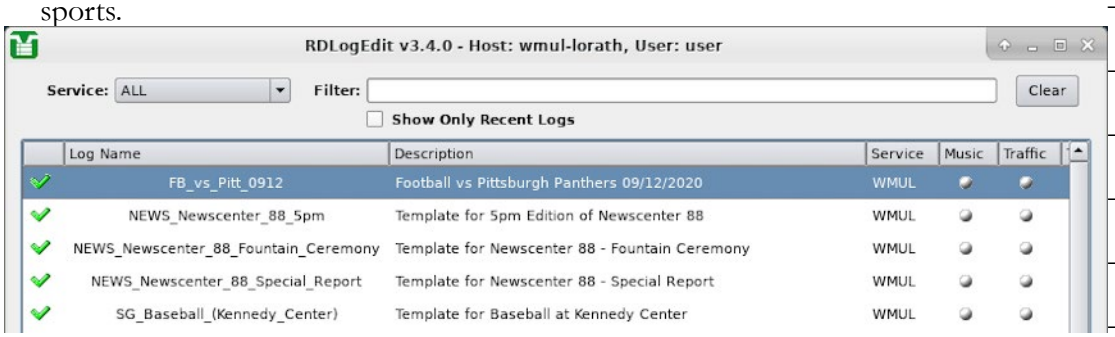

88.1 FM
FROM THE HERD
2013
WMUL
88.1 FM
HAIR FROM THE HERD
2013
BOSE

15. Computer Playback (Automation) - "Behind The Scenes" Operations

15.A. RD Log Edit

Reader's Notes

RD Log Edit is the program that allows the user to make changes to the on-air log and to create special logs for non-music programming such as news and sports.



Open the program to reveal all of the logs that are available. The "Filter" and "Show Only Recent Logs" controls can be used to reduce the number of logs that are displayed.

The screen displays thirteen (13) columns of metadata about each log. Only the first six (6) are shown in the screenshot.

- **Status:** Either a green check or a red X. A quick estimate of whether the log is ready for air, based on whether it has Music, Traffic, and Voice-Tracks. A red X does not mean that the log is unairable, just that it might not have all of the parts, usually Voice-Tracks. (See below)
- **Log Name:** The unique name of the log. Spaces are not permitted in names. WMUL-FM uses underscores "_" instead.
- **Description:** A longer description of the log's purpose. The description does not have to be unique and can contain spaces.
- **Service:** Should always be "WMUL". Larger organizations with multiple stations would use this to separate their different stations' logs.
- **Music:** Displays a status of whether the log needs to import a music log from external music scheduling software. Grey: Not needed; Red: Needed, but not imported; Green: Needed and imported. Only the daily music logs will need an external music log.

Reader's Notes

- **Traffic:** Displays a status of whether the log needs to import a traffic log from external traffic software. Uses the same code as Music. WMUL-FM does not air commercials or underwriting and thus does not use external traffic software.
- **Tracks:** Displays a status of whether and how many voice-tracks are in the log. Grey: Voice-tracks not required; Red: Voice-tracks required, but not all recorded; Green: Voice-tracks required and all recorded. The numbers show how many voice-tracks have been recorded and how many total are required.
- **Valid From:** The starting date when the log becomes airable. Most of these will say "Always".
- **Valid To:** The ending date after which the log is no longer airable. Most of these will say "TFN" (unTill Further Notice).
- **AutoRefresh:** See 15.A.7. Auto Refresh on Page 50.
- **Origin:** The username of the user who created the log and the timestamp when it was created.
- **Last Linked:** The timestamp when the log last had Music or Traffic Imported. Will be the same as the origin time stamp if Music and Traffic have never been imported.
- **Last Modified:** The timestamp when the log was last modified.

The buttons along the bottom of the screen create logs, activate the voice-tracker, and generated reports.

- **Add:** Create a new log. 15.A.2. Creating an Entirely New Log on Page 46.
- **Edit:** Edit the highlighted log. 15.A.5. Editing a Log on Page 48.
- **Delete:** Delete the highlighted log.
- **Voice-Tracker:** Open the Voice-Tracker for the selected log. See on page XX.
- **Log Report:** Generate a fixed-text-width report about the logs. This is the same data that is on the screen, but you can save it to a text file.

15.A.1. Types of Logs

Reader's Notes

WMUL-FM uses three basic types of playlists: music logs, program template logs, and program episode logs. These are distinctions the station makes. The software treats them all the same.

Music Logs are the automatic daily log that contains the normal music programming. These logs have a name with the format "WMUL-MMDD" where MM is the month and DD is the day. The description has the format "WMUL log for DD/MM/YYYY". These logs are generated by the Traffic Department.

Program Template logs and Program Episode logs are used by non-music programs. Each program has a Program Template log that contains all the imaging the program needs and in the order it will be needed (Intro, Outro, breaks, and other imaging). Template log descriptions have the format "Template for (Program)"

A copy of that template is made for each individual episode of the program. The Program Episode log can have episode-specific items such as pre-recorded interviews, packages, or special imaging. .

Creating an Program Episode log can be done earlier in the day or week of the episode. It can even be done weeks, or months, in advance. Usually, it is sufficient to schedule the playlist earlier in the day or week.

Once created, a Program Episode Log can be loaded into Rivendell. See 14.E.5. The Select Log Dialog Box on Page 17.

Program Template names have the format "PREFIX_ProgramName". As of this writing, the prefixes are:

- **NEWS:** For news programming
- **SG:** For sports games
- **SP:** For sports programs
- **PGM:** For other long programs.
- **MISC:** For everything else

Program Episode names have the format "PREFIX_SpecificInfo_Date". As of this writing, the prefixes are:

- **N88:** Newscenter 88 at 5pm
- **NEWS:** Special Newscasts
- **FB:** Football
- **VB:** Volleyball
- **MSOC:** Men's Soccer
- **WSOC:** Women's Soccer

Reader's Notes

- **MBB:** Men's Basketball
- **WBB:** Women's Basketball
- **SB:** Softball
- **BB:** Baseball
- **BSKFN:** Basketball Friday Night
- **BSEFN:** Baseball Friday Night
- **SNITE:** Sports Night
- **HRU:** Herd Roundup
- **MISC:** For everything else

SpecificInfo would generally be things like the opposing team for sportscasts. E.G. "FB_vs_Pitt_0912" for the Football vs Pittsburgh game on September 12th. This field probably will not be needed for programs such as Newscenter 88.

NOTE

The Program Template and Program Episode distinction is a convention that WMUL-FM has adopted. You could make one log for your program and re-use it for every episode; adding and deleting the episode-specific items each week. The software will not stop you.

Keeping a separate Program Template log helps keep the log consistent from one episode to the next. Maintaining separate episode logs for each episode means that you have to worry less about airing something during the wrong episode.

15.A.2. Creating an Entirely New Log

This procedure will create an entirely new, blank, log.

1. Click the "Add" button. The "Create Log" dialog box will appear.
2. Enter the name of the new log. It must be unique. Spaces are not allowed, use underscores "_" instead. Use one of the standard prefixes for Program Templates or Program Episodes.
3. Make certain the service is set to "WMUL".
4. Click "OK". The new log will be created and opened. It will have a default description of the name you gave it in step 2, followed by the word "log".
5. Edit the log. See 15.A.5. Editing a Log on Page 48.

Reader's Notes

15.A.3. Creating a New Log Based on an Existing Log

This procedure will let you make a new log based on an existing log. You can use this procedure to create an program episode log based on a program template log, or to create a new template based on an existing template.

1. Double-click on the source log to open it for editing.
2. Click the "Save As" button. The "Create Log" dialog box will appear.
3. Enter the name of the new log. It must be unique. Spaces are not allowed, use underscores "_" instead. Use one of the standard prefixes for Program Templates or Program Episodes.
4. Make certain the service is set to "WMUL".
5. Click "OK". The new log will be created and opened. It will have the same description as the source log.
6. Edit the log. See 15.A.5. Editing a Log on Page 48.

15.A.4. Log Settings

Open the log to edit its settings. Each log has several editable settings and metadata fields.

- **Description:** A longer description of the log's purpose. The description does not have to be unique and can contain spaces.
- **Service:** Should always be "WMUL". Larger organizations with multiple stations would use this to separate their different stations' logs.
- **Enable AutoRefesh:** See 15.A.7. Auto Refresh on Page 50.
- **Start Date Enabled, Start Date:** The starting date when the log becomes airable.
- **End Date Enabled, End Date:** The ending date after which the log is no longer airable.
- **Delete On:** The date after which the log will be deleted. Set this on episode-specific logs to automatically delete the log after the episode airs. Set it for a day or two after the scheduled air date of the log.

Reader's Notes

15.A.5. Editing a Log

- The "Run Length" | "Next Stop" field seems to display the duration between the end of the selected entry and the final stop in the log, or the end of the log if the log has no stops. It will be blank if the log has stops, but the selected entry is after the final one.
- The "Run Length" | "Log End" field seems to display the duration between the beginning of the selected entry and the end of the log.
- A cart can be added in two ways: by selecting an existing entry and clicking the "Insert Cart" button, or by dragging and dropping from RD Library.
    - Using "Insert Cart":
        i. Select an existing entry.
        ii. Click "Insert Cart". The "Edit Log Entry" dialog will appear.
        See 15.A.6. The Edit Log Entry Dialog on Page 50.
        iii. Use the "Edit Log Entry" dialog to select a cart and edit the entry's settings.
        iv. Click "OK". The existing entry will be pushed down and the new entry will be inserted in its place.
    - Dragging and Dropping:
        i. Find a cart in RD Library.
        ii. Drag and drop it into RD Log Edit. The entry that you drop the cart onto will be pushed down and the new cart will be inserted in its place. The entry will default to not be a timed event and to have a Segue transition. You can edit these settings by double-clicking on the entry.
        See 15.A.6. The Edit Log Entry Dialog on Page 50.
- It is possible to insert a cart into the log, even when that cart does not exist. You can use this to create a space in the log for an item, such as a package, that you have not yet ingested. Use the "Insert Cart" button and type the number of a non-existant cart into the "Cart" field.
- Click "Insert Meta" to insert a Note Marker, Voice Track, or Log Chain.
    - A note marker is a text note to the operator about actions that need to be taken, announcements that need to be made, or to mark the program segment. Note markers can have transitions the same as audio carts. A stop transition can be used on program segment markers to stop RD AirPlay after each break.

Reader's Notes

    - See voice-tracking on page XX.
    - A Log Chain can be inserted at the end of the log to automatically load another log when it finishes. These are automatically inserted at the end of each day's music log to load the next day's log.
- Edit brings up the "Edit Log Entry" dialog box for the highlighted entry.
- Double-clicking on an entry brings up the "Edit Log Entry" dialog box for that entry.
- Give the entry a "Stop" transition to stop RD AirPlay before that item plays. Use this transition at the end of breaks and anywhere else you want the system to automatically stop.
- Use the up and down arrows to move an entry up or down one space. If you need to move the entry more than a space or two, it's probably easier to use the cut and paste buttons.
- Use the "Save" button to save the log and continue editing.
- Use the "Save As" button to save the log under a new name and continue editing it under that new name. If you want to make a copy and then continue editing the original, you will have to close the copy and reopen the original.
- The "Render" button can be used to turn the playlist into a single audio file.
- The "Reports" button can be used to run reports on the log. See 15.A.8. Log Reports on Page 50.
- The play and stop buttons can be used to audition the selected cart. It will play through the "PView" channel on the board.
- The "Show Start Times As" combobox can be used to change the start time display between scheduled time and estimated time. You will want to leave this on "Estimated". For music playlists, the scheduled time is a guess based on average song lengths. For other playlists, the scheduled time for all entries will be "00:00:00.0".
- Click "OK" to save the log and close the editor.
- Click "Cancel" to abandon any unsaved changes and close the editor.

Reader's Notes

15.A.6. The Edit Log Entry Dialog

This dialog box allows you to set which cart the entry uses, set its transition, and make it a timed event.

- Use the "Start At" and "Action If Previous Event Still Playing" controls to set a timed event. See 14.H. Timed Events on Page 24.
- You can enter a cart number directly into the "Cart" field to specify the cart.
- You can click the "Select Cart" button to open the "Select Cart" dialog box. That is a smaller version of RD Library.
- Set the transition type with the "Transition Type" combobox. See 14.P. Transitions on Page 40.
- I don't know what "No Fade on Segue Out" does. Leave it unchecked.

15.A.7. Auto Refresh

Auto Refresh is a setting in each log. When it is set on a log and that log is loaded in RD AirPlay, any changes saved to that log in RD Log Edit will be automatically loaded in RD AirPlay. If it is turned off, the log may be manually refreshed by clicking the "Refresh Log" button under the Main Log in RD AirPlay. 14.E.3. Full Log on Page 14.

15.A.8. Log Reports

Click the "Reports" button to generate a report of the open log. Two different reports are available.

- **Log Listing:** This is a text version of the log, with the following metadata: Cart Type, Scheduled Start Time, Transition Type, Cart Number, Group, Length, Title, Artist, Source, Line Number.
- **Log Exception:** This is a text listing of any carts in the log that are not playable, either because they do not exist, or because of dayparting.

15.B. RD Library (Managing)

Reader's Notes

This section covers how to manage carts within RD Library. See 14.K. RD Library (Searching) on Page 28 for the first part of RD Library.

15.B.1. Start and End Dates

These two fields have different meanings depending on how the cart was ingested. If the cart was imported from WOAFR, or using Adobe Audition 3.0, the start date will be the date the song was originally ingested and the end date will be centuries in the future.

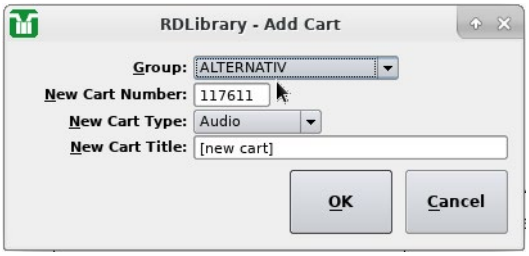
If the cart was created within Rivendell, or ingested using Adobe Audtion 2020, the start date will be blank, unless a start date was actually set. The end date will be "TFN" ('Till Further Notice), unless an end date was actually set.

If a cart has multiple cuts, it will display the widest range of dates for which any cut will play. If any cut has no start and end date, then the cart will display a blank start date and a "TFN" end date. If Cut 001 has a start date of 06/01/2020, an end date of 06/07/2020, and Cut 002 has a start date of 06/08/2020 and an end date of 06/14/2020, then the cart will display 06/01/2020 - 06/14/2020.

15.B.2. Adding a Cart from Within Rivendell

It is possible to create a new cart and import audio into it either from a file or from another Rivendell cart.

1. Open RD Library.
2. Click the "Add" button. The "RD Library - Add Cart" dialog box will open.



3. Select the group for which you are creating a new cart using the "Group" combobox.

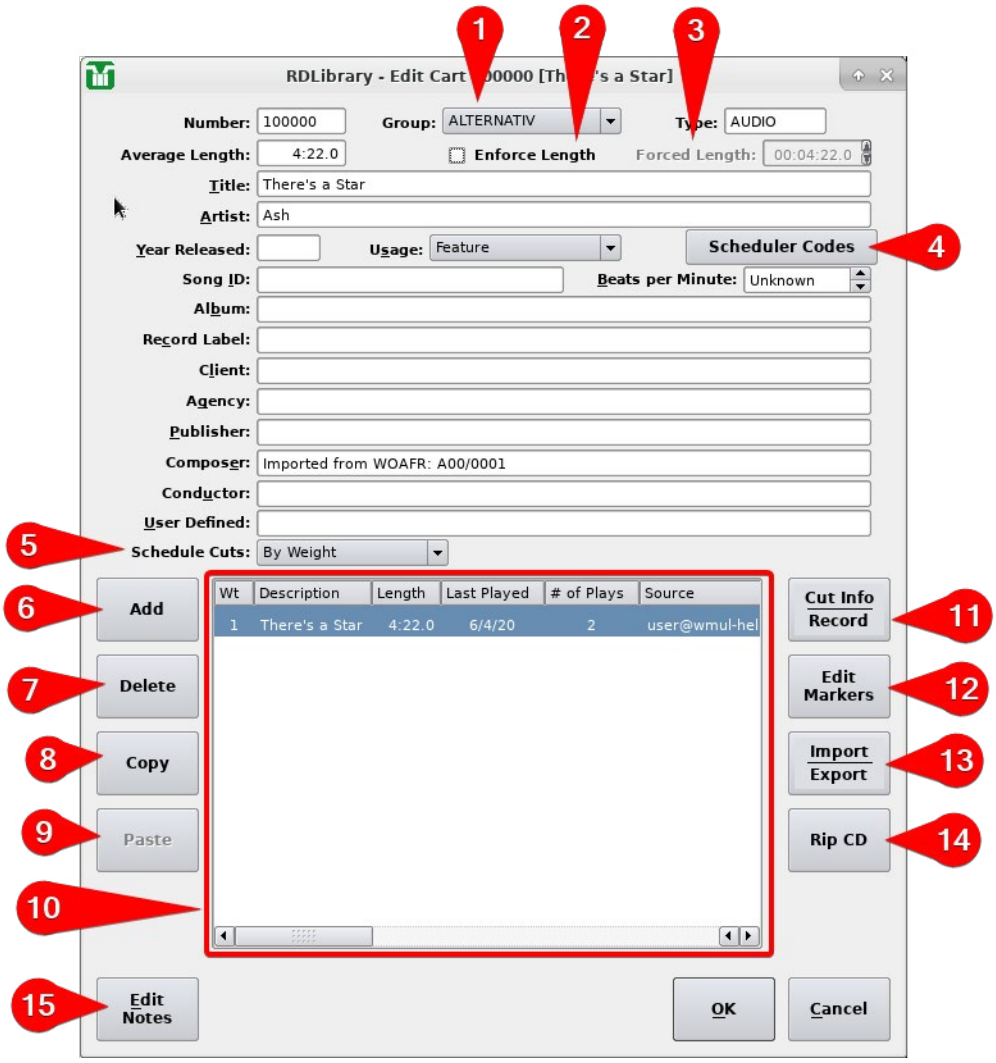
Reader's Notes

4. When you select a group, the "New Cart Number" box will be updated to the lowest available cart number in that group. You may type in another number if you need a specific number. If a cart with that number already exists, it will show an error message after you click "OK" and will not let you create another cart with the same number.
5. "New Cart Type" will be "Audio".
6. "New Cart Title" will be whatever the title of the audio is.
7. Click "OK". The cart will be created and the "Edit Cart" dialog box for that cart will open.
8. Finish setting the metadata for the cart. See 15.B.3. Editing Cart Metadata on Page 53.
9. The cart does not yet have any audio cuts. See 15.B.6. Importing a Cut from a File on Page 62.

15.B.3. Editing Cart Metadata

Reader's Notes

Double-click on a cart in RD Library to open the "Edit Cart" dialog.

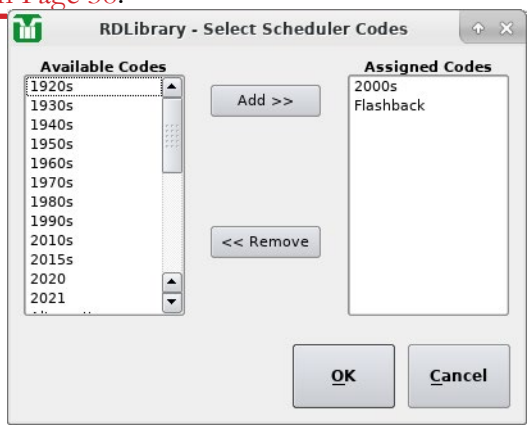


Most of the meta-data fields are either self-explanatory, or were explained in 14.K.1. Metadata Fields on Page 30. The Number, Type, and Average Length fields are read-only.

1. **Group Box:** Use this box to change the group assignment for the cart.
2. **Enforce Length:** Do not use this. When this is checked, the cart will be time-scaled to match the value in "Forced Length" (4).
3. **Forced Length:** When "Enforce Length" is checked, this is the length to which the cart will be time-scaled.

Reader's Notes

4. **Scheduler Codes:** Click this button to bring up the list of scheduler codes. You can add or remove codes using this dialog. See 14.N. Scheduler Codes on Page 38.



5. **Schedule Cuts Box:** Use this to determine whether to schedule the individual cuts within the cart "By Weight" or "By Specified Order". See 15.B.10.a. Cut Rotation on Page 65.
6. **Add:** Add a cut to the cart. The new cut will initially be blank. See 15.B.6. Importing a Cut from a File on Page 62 and 15.B.10.c. Copying a Cut from One Cart to Another on Page 66.
7. **Delete:** Delete the highlighted cut from the cart. Be careful, there is no undo. See 15.B.8. Removing Audio on Page 64.

> WARNING!
> Deleting audio is permanent! There is no undo.

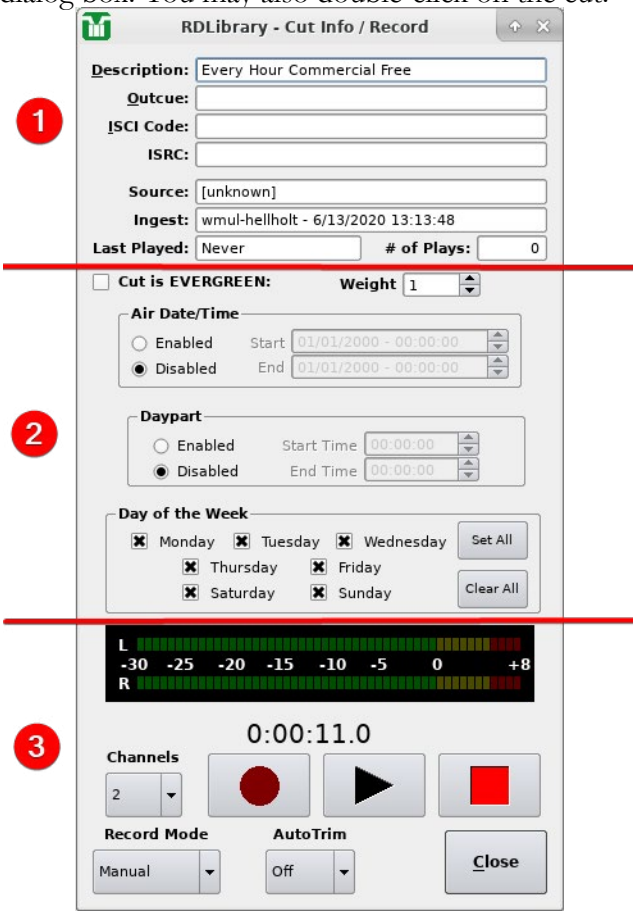
8. **Copy:** Copy the selected cut to the clipboard.
9. **Paste:** Paste the cut that is on the clipboard over the selected cut. If you wish to add the clipboard as a new cut, click "Add", select that blank cut, and then "Paste".
10. **List of Cuts:** The list of cuts within this cart.
11. **Cut Info | Record:** Click this to open the Cut Info / Record dialog box. Use this to edit the cut-level meta-data and audio. 15.B.4. Editing the Cut Info on Page 55.
12. **Edit Markers:** Click this to open the "Edit Audio" dialog box. Use this to set the markers in the audio. See 15.B.5. Editing Cart Markers on Page 58.

Reader's Notes

13. **Import | Export:** Click this to bring up the "Import/Export Audio File" dialog box. 15.B.6. Importing a Cut from a File on Page 62 and 15.B.7. Exporting a Cut to a File on Page 63.
14. **Rip CD:** Allows a CD to be ripped directly into Rivendell. Since that does not permit the audio to be edited for language before ingesting, WMUL-FM does not use this function. See 15.C. Ingesting New Audio with Adobe Audition on Page 68 for instructions on how to ingest and edit CDs with Adobe Audition.
15. **Edit Notes:** Brings up a text-box to edit the "Notes" field. That field is only accessible from this button and is not searchable.

15.B.4. Editing the Cut Info

Select a cut and click the "Cut Info | Record" button to open the "Cut Info / Record" dialog box. You may also double-click on the cut.



Reader's Notes

This dialog can be roughly divided into three sections. The top section is describes the cut, the middle section controls the daypart settings, and the bottom part is the recording and playback controls. Click the play button to play the cut through the preview channel. The "Source", "Ingest", "Last Played", and "# of Plays" fields are read-only. See 15.B.4.a. Cut Dayparting on Page 56 and 15.B.4.b. Recording a Cut on Page 57.

15.B.4.a. Cut Dayparting

Rivendell provides four ways of restricting when a cart may be played: start and end date, time dayparting, day dayparting, and evergreen.

Start and End Dates

The start and end date and time can be set when the cut should not play before or after a specific time. An example would be a promo for a football game broadcast. The promo should not air before the previous game ends and should not air after the game broadcast (the one that it is promoting) begins.

If a cut needs an end date, but can begin playing immediately, you can set the start date to the current time or a time in the past. If the cut needs a start date, but can play forever after that date, set the end date to centuries or millenia in the future. E.G. 12/31/7999.

Time Dayparting

Time dayparting can be used to make certain a cut only airs during a particular time of day. The end time must always be after the start time. E.G. set the start time to 06:00:00 and the end time to 13:00:00 to restrict a cut to airing between 6 A.M. and 1 P.M.

Day Dayparting

Day dayparting can be used to make certain a cut only airs on particular days of the week. E.G. check the boxes for Monday, Tuesday, and Wednesday and the song will only air on those days.

Combined Dayparting

All three settings work together and the most restrictive setting takes precedence. E.G. The time and day dayparting do not matter if the start date is still in the future. If the start date is Monday, June 22nd, but the day dayparting does not allow playback on Mondays, then the cut will not be playable until the 23rd.

Reader's Notes

Evergreen

A cut that is marked "EVERGREEN" will only play when no other cuts are available. This is different than just setting a cut to have no restrictions. A cut with no restrictions will play on even terms with cuts that are restricted. An evergreen cut will only play if nothing else is available.

If you have three cuts within a cart with the following settings:

Cut 001	Evergreen
Cut 002	No restrictions
Cut 003	6 A.M. - Noon

Then Cut 002 and Cut 003 will play evenly between 6 A.M. and Noon; Cut 002 will play the rest of the day; and Cut 001 will never play.

Limitations

Time restrictions are the same each day of the week. E.G. You cannot set a cut to be playable between 4 A.M. and 6 A.M. Mondays and between 10 A.M. and 12 P.M. Tuesdays.

Time restrictions cannot cross midnight. E.G. You cannot set a cut to be playable between 8 P.M. and 4 A.M.

You can get around these limitations by making multiple copies of the cut and giving each copy different settings. See 15.B.10.c. Copying a Cut from One Cart to Another on Page 66. In this case, you would be pasting back into the same cart. E.G. Cut 001 is playable between 8 P.M. and 11:59:59 P.M. and Cut 002 is playable between Midnight and 4 A.M.

15.B.4.b. Recording a Cut

You can record audio directly into a cut from within Rivendell. The chances that you will need to do this are small, but the instructions are here just in case. Rivendell offers no ability to edit multiple takes together, so it is necessary to get your recording in a single take. If you make a mistake, you can scrap the entire recording and try again from scratch.

1. Set the "Channels" box to the correct setting, usually "1". (If is extraordinarily unlikely that you would be recording stereo audio using this method.)
2. Set the "Record Mode" to "Manual". The other mode, "VOX", does not seem to work.
3. Set "Autotrim" to "Off".
4. Turn your microphone on and adjust the levels.

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5. Arm the recording by clicking the record button. If audio already exists in this cut, it will display a confirmation dialog box. As soon as you click "Yes", the old recording will be permanently discarded. The center of the record button will turn bright red and the center of the play button will blink black and green. It is not recording yet.
6. When you are ready to begin recording, click the play button. The play button will stay green and the counter will begin counting up the elapsed time of the recording.
7. When you are finished recording, click the stop button.
8. Click the play button to listen to your recording through the preview channel.
9. You may trim the head and tail of the recording using the markers. See 15.B.5. Editing Cart Markers on Page 58.

15.B.5. Editing Cart Markers

Select a cut and click the "Edit Markers" button to open the "Edit Audio" dialog box. Rivendell uses a set of markers to mark various times of interest in the cut. Every marker has a start and an end point, with the exception of the Fade In and Fade Out markers. When ingesting a file with Adobe Audition, two markers are set by the user and four more are set automatically.

- **Cut Start:** Marks the beginning of audio in the file. This marker will almost always be the absolute beginning of the file. This marker is set automatically when ingesting from Adobe Audition. If you have recorded directly into Rivendell, you may want to use this to trim the head and remove extraneous audio. If you export a cut and then open it in Adobe Audition 2020, this marker will be called "AUDs" (Audio Start).
- **Cut End:** Marks the end of audio in the file. This marker will almost always be the absolute end of the file. This marker is set automatically when ingesting from Adobe Audition. If you have recorded directly into Rivendell, you may want to use this to trim the tail and remove extraneous audio. If you export a cut and then open it in Adobe Audition 2020, this marker will be called "AUDe" (Audio End).
- **Talk Start:** Marks where to start the Talk Counter in RD AirPlay. This marker will almost always be the same as Cut Start. This marker is automatically set to the same as Cut Start when ingesting from Adobe

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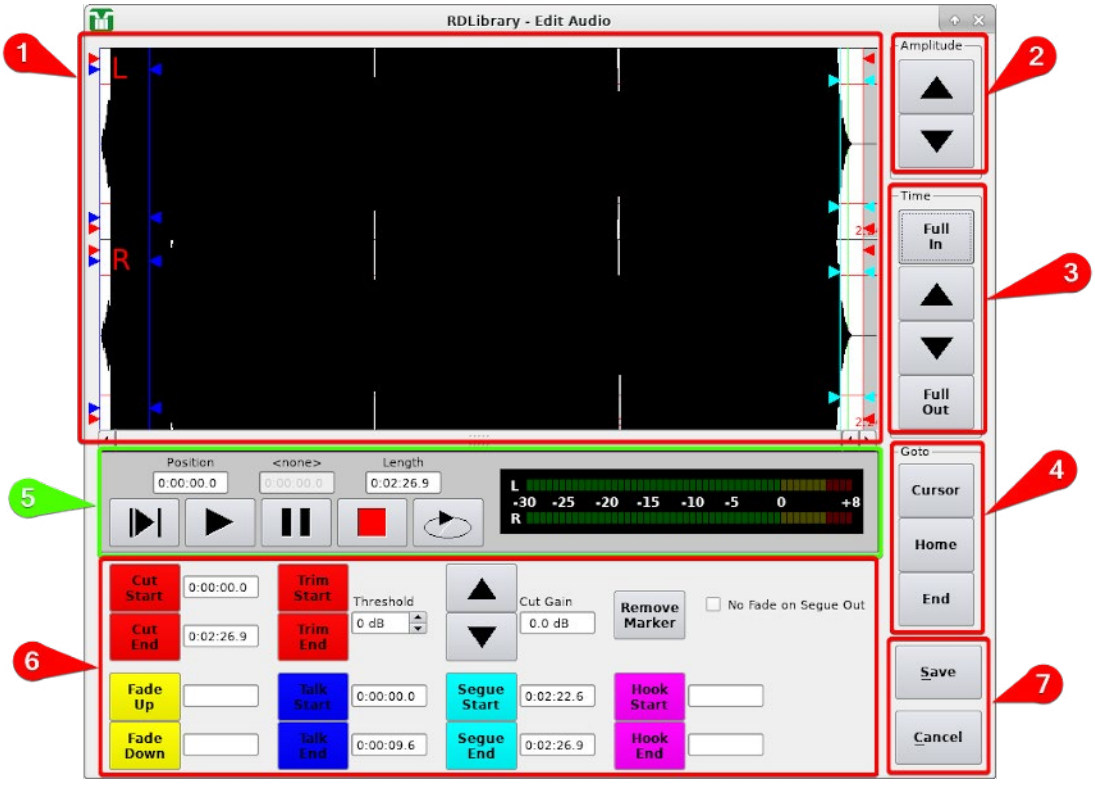
Audition. If you export a cut and then open it in Adobe Audition 2020, this marker will be called "INTs" (Intro Start).

- **Talk End:** Marks where to stop the Talk Counter in RD AirPlay. This marker will be the post in the song. This marker is set by the "INT" marker in Adobe Audition. If you export a cut and then open it in Adobe Audition 2020, this marker will be called "INTe" (Intro End).
  - **Songs:** The post is the point in the song where the lyrics begin. If the song is instrumental, the post is the beginning of the file.
  - **Promos, PSAs, Programs:** The post is the beginning of the file.
  - **Program Imaging:** For intros and rejoins, the post is the point where the talent should begin speaking. For outros and break-beds, the post is the point where the talent should stop speaking
- **Segue Start:** Marks where the segue begins in the audio file. When the segue start point is reached in the file, Rivendell will start playing the next file, providing a nice cross-fade between the songs. This timer is set by the "SEGs" timer in Adobe Audition.
  - **Songs, Program Imaging:** In a song that ends cold, the cross-fade point is the end of the song. In a song that fades out, the cross-fade point is where the music fades below -18 dB and stays.
  - **Promos, PSAs, Programs:** The cross-fade point is the end of the audio.
- **Segue End:** Marks where the segue ends. This will almost always be the same as Cut End. This marker is automatically set to the same as Cut end when ingesting from Adobe Audition. If you export a cut and then open it in Adobe Audition 2020, this marker will be called "SEGe" (Segue End).
- **Hook Start and End:** WMUL-FM does not use this function.
- **Fade Up and Down:** WMUL-FM does not use this function.

Reader's Notes



1. **Waveform:**
2. **Amplitude zoom controls:** Use these to zoom the amplitude of the audio in and out. It does not change the actual amplitude of the audio, just the view.
3. **Time zoom controls:** Use these to zoom in and out in the timeline.
4. **Goto Buttons:** Use these to jump the view to different points in the timeline.
5. **Transport Controls:** Use these to play back the audio to find where to place the markers.
   a. Position shows the position of the cursor.
   b. The middle box will show the length between a start marker and the corresponding end marker, when a marker is selected.
   c. Length shows the actual length between the Cut Start and Cut End markers.
   d. The first play button (with the bar) will start playback from the cursor.
   e. The second play button will start playback from the Cut Start marker.
   f. The loop button will play the audio continuously on a loop.

Reader's Notes

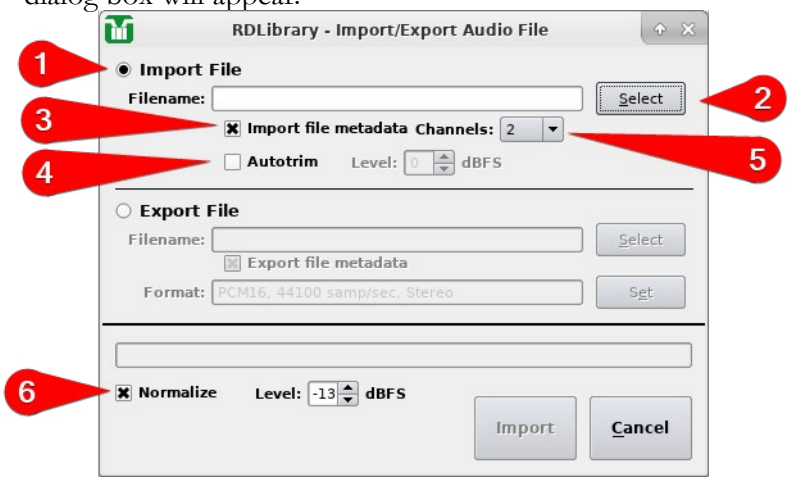
6. **Marker Controls:** Use these to set the markers.
    - Click on the button of the marker you wish to set. The button will start blinking to indicate you are setting that marker. There are two ways to set it.
        i. Click in the waveform where you want the maker to go. You can drag the marker to a new position once it is set.
        ii. Type the time for the marker into the box next to the button. You may leave off any leading zeroes, and a zero that is after the decimal.. E.G. "1" for "0:00:01.0" or "2:20" for "0:02:20.0".
    - When setting the Talk and Segue markers, you can just set the Talk End and Segue Start marker. The system will automatically set the Talk Start maker to the same as Cut Start, and Segue End to Cut End.
    - You can use the "Threshold" and "Trim Start" and "Trim End" controls to automatically set the "Cut Start" and "Cut End" markers using the audio level. However, it is probably easier and more accurate to do it manually.
    - Click the "Remove Marker" button and then one of the marker buttons to remove that marker. If you remove a Talk or Segue marker, the other marker of that type will be removed as well. E.G. If you remove the Segue End marker, the Segue Start marker will also be removed.
    - The Cut Gain control will adjust the audio level of the entire cut. You will rarely need this because cuts will have proper audio levels before they are ingested.
    - No Fade on Segue Out: What does this do? Leave it unchecked.

Reader's Notes

15.B.6. Importing a Cut from a File

It is possible to import a cut from a file from within Rivendell.

1. Open the cart to which you wish to import a cut.
2. If you want to add a new cut to the cart, click "Add" to insert a new blank cut and select it. If you want to overwrite an existing cut, click that cut.
3. Click the "Import | Export" button. The "Import / Export Audio File" dialog box will appear.



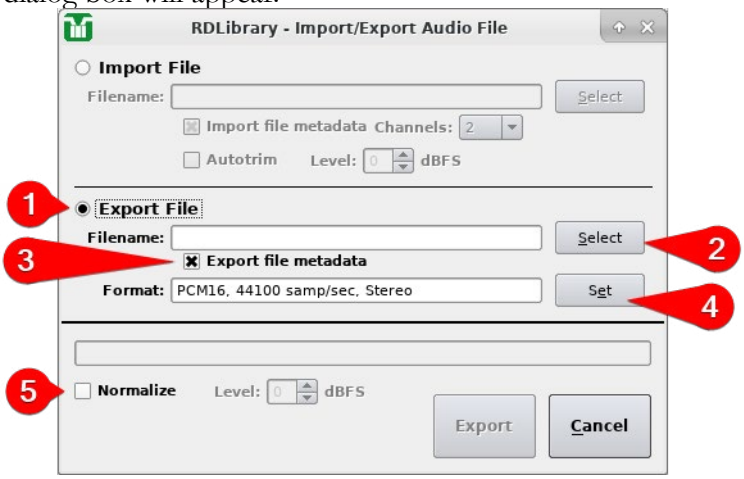
4. Make certain the "Import File" radio button (1) is selected.
5. Click the "Select" button (2) to open the file dialog box.
6. Navigate to where your file is stored and select it. (The Y and Z drives can be found under /mnt/ .)
7. If you want to import the metadata from the file, check the "Import File metadata" box (3). It will not overwrite any fields that you have already set in the cart. It will only import those fields that are blank in the cart.
8. Make certain that "Autotrim" (4) is unchecked.
9. Set the "Channels" box (5) to the desired setting. Generally, you will want this setting to be the same as the file. However, the system will properly convert a mono file to stereo and vice-versa.
10. Make certain that "Normalize" is unchecked. That function will adjust the audio levels of the file. You do not want that. The audio levels in the file should already be correct. If they are not correct, fix them in the file before you import it.
11. Click the "Import" button. It will take several seconds to process before displaying an "Import Complete!" comfirmation box.

15.B.7. Exporting a Cut to a File

Reader's Notes

An individual cut can be exported to a file.

1. Open the cart from which you wish to export a cut.
2. Select the cut you wish to export.
3. Click the "Import | Export" button. The "Import / Export Audio File" dialog box will appear.



4. Select the "Export file" radio button (1).
5. Click the "Select" button (2) to bring up a file dialog. Use that to select the location and file name of the exported file. (The Y and Z drives can be found under /mnt/ .)
6. You will usually want "Export file metadata" to be checked.
7. Make certain that the format is "PCM16, 44100 samp/sec, Stereo" (or "Mono", if the file is mono.) Use the "Set" button (4) to change it if necessary.
8. Make certain "Normalize" is unchecked.
9. Click "Export". It will take several seconds before displaying an "Export complete!" confirmation box.
10. You may now open the file in an external program.

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15.B.8. Removing Audio

It is occasionally necessary to remove files from the computer playback library. Usually these are old news packages, old program segments, and the like. Unless you know for a certainty that a copy of the file exists on the file server, export the file beofre removing it from the library.

1. Find the cart you want in RD Library.
2. Open the cart.
3. Export the cuts. See 15.B.7. Exporting a Cut to a File on Page 63.
4. To delete just that cut, but keep the rest of the cart:
    a. Select the cut in the list
    b. Click the "Delete" button. A confirmation dialog box will appear.
    c. Click "Yes".
5. To delete the entire cart:
    a. Close the "Edit Cart" dialog.
    b. Select the cart in the list.
    c. Click the "Delete" button. A confirmation dialog box will appear.
    d. Click "Yes".
6. The audio is now deleted from the library.

15.B.9. Modifying Audio After It Has Been Ingested

It is possible to make modifications to a cut after it has been ingested. If you only need to change metadata, see 15.B.3. Editing Cart Metadata on Page 53 and 15.B.4. Editing the Cut Info on Page 55. If you need to make changes to the audio, the cut will have to be exported and re-imported.

1. Export the cut you wish to modify. See 15.B.7. Exporting a Cut to a File on Page 63.
2. Open the file in Adobe Audition.
3. Make the changes you need to make.
4. Save the file in Adobe Audition. Do not re-save into one of the import folders, that will create a new cart. The old cart, with the old audio, will still be in the system.
5. Import the audio over the cut. See 15.B.6. Importing a Cut from a File on Page 62.

15.B.10. Carts with Multiple Cuts

Reader's Notes

Each cart can have one or more cuts. Most carts, such as songs, will only have a single cut. When a cart has multiple cuts, each cut is played back according to a rotation and dayparting. Once the cart reaches the end of the rotation, it starts from the beginning. See 15.B.10.a. Cut Rotation on Page 65 and 15.B.4.a. Cut Dayparting on Page 56.

WMUL-FM uses these for Legal IDs, the Hourly Promo, and for promos and rejoins in news and sports special playlists.

15.B.10.a. Cut Rotation

Cuts within a cart may be rotated in either of two ways: by weight, or by specific order. If a cart rotates by specified order, then each cut will play once each rotation, in the order set. If a cart rotates by weight, then some cuts will play more often than others. For instance, if cuts A and B have a weight of 2 and cuts C and D have a weight of 1, then cuts A and B will play twice for each time cuts C and D play.

By Specified Order

To set up a cart to rotate by specified order:

1. Open the cart.
2. Set the "Schedule Cuts" box to "By Specified Order".
3. Open the "Cut Info | Record" box for a cut.
4. Set the order using the "Order" box.
5. Repeat steps 3 and 4 for each cut.

The numbers do not need to be continuous. E.G. You can set cuts to be "5, 10, 12, 20" and that will work as expected. You can use this if you want to leave room in the rotation to add additional cuts later.

The cart remembers which number cut it played last. If a cart has cuts numbered 1-4, and 4 played last, and then you add 5-8, it will play 5 next.

By Weight

To set up a cart to rotate by weight:

1. Open the cart.
2. Set the "Schedule Cuts" box to "By Weight".
3. Open the "Cut Info | Record" box for a cut.
4. Set the desired weight using the "Weight" box.
5. Repeat steps 3 and 4 for each cut.

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15.B.10.b. Interaction of Cut Rotation and Dayparting

Cut rotation and dayparting can interact in unpredictable ways. It is generally best practice to use one method or the other. If you want to use dayparting, set the cart to rotate by weight and set all the weights the same.

15.B.10.c. Copying a Cut from One Cart to Another

An individual cut may be copied and pasted into one or more other carts.

1. Open the cart from which you wish to copy a cut.
2. Select the cut in the list.
3. Click the "Copy" button.
4. Close the cart.
5. Open the cart to which you wish to paste the cut.
6. Select the cut you wish to overwrite. If you want to insert a new cut, click the "Add" button and select the new cut.
7. Click the "Paste" button. If you are overwriting an existing cut, it will display a confirmation dialog.
8. Repeat steps 4-7 for each destination cart.
9. Repeat steps 1-8 for each source cut.

15.B.11. RD Library Reports

Reader's Notes

The "Reports" button in RD Library allows the operator to create a text file report of the carts in the library. The report will only contain the carts that fit any search criteria input into RD Library. If you select the "ALTERNATIV" group, then the report will only contain carts from that group.

Each report will be opened in a text editor. It can then be saved by clicking on Hamburger Menu | "Save As...".

See 14.K.1. Metadata Fields on Page 30 for an explanation of the various metadata fields.

Three types of cart reports are available.

- **Cart Report:** This report is a fixed text width report and includes the following metadata fields: Cart Type, Cart Number, Group, Length, Title, Artist, Number of Cuts, Cut Rotation, Enforce Length, Length Deviation, and Owner. It only includes the carts, not the individual cuts within the cart.
- **Cut Report:** This report is a fixed text width report and includes the following metadata fields: Cart Number, Cut Number, Weight or Order, Cart Title, Cut Description, Cut Length, Last Played Date, Number of Plays, Start Date, End Date, Days of Week, and Daypart. This includes each individual cut.
- **Cart Data Dump (CSV):** This is a comma-separated-value report that includes all of the metadata fields and all of the individual cuts.

Reader's Notes

15.C. Ingesting New Audio with Adobe Audition

There are four methods of ingesting new audio into Rivendell: Adobe Audition 3.0, Adobe Audition 2020 (Creative Cloud), importing from within Rivendell, and recording from within Rivendell.

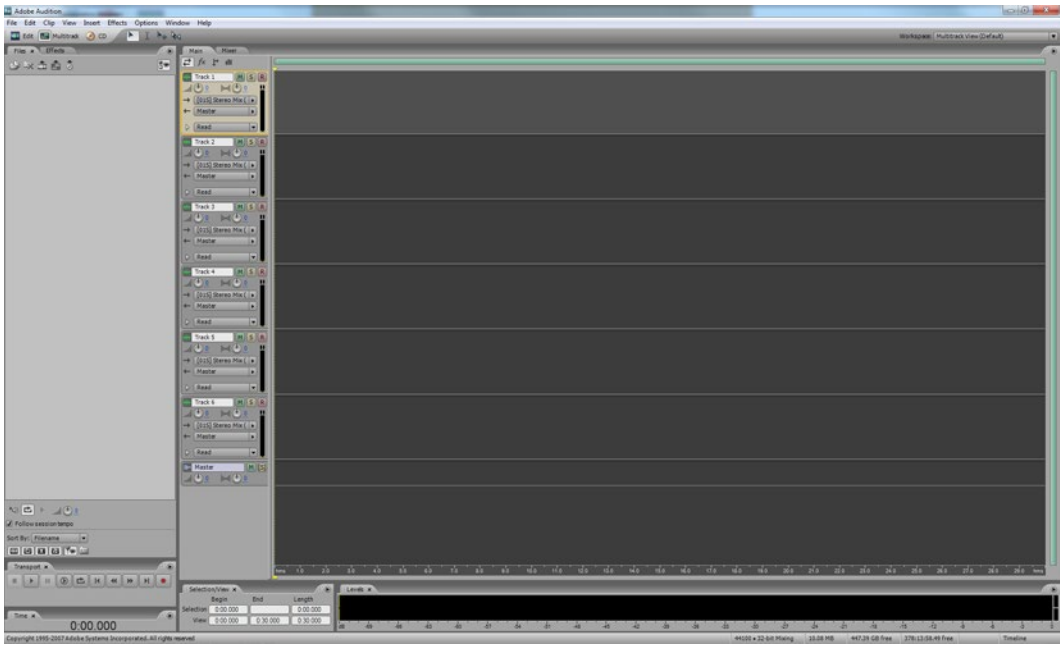
15.C.1. Ingesting with Adobe Audition 3.0 on Page 68
15.C.2. Ingesting with Adobe Audition 2020 on Page 79
15.B.2. Adding a Cart from Within Rivendell on Page 51
15.B.6. Importing a Cut from a File on Page 62
15.B.4.b. Recording a Cut on Page 57
15.C.4. Special Importers on Page 88

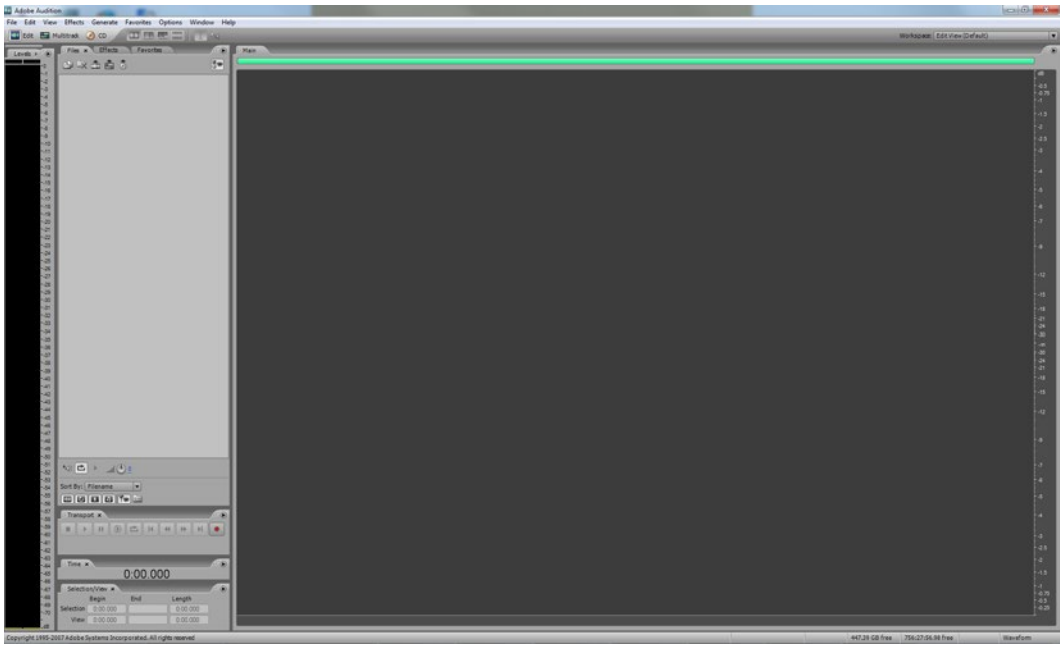
15.C.1. Ingesting with Adobe Audition 3.0

15.C.1.a. Opening Adobe Audition and the File

1. Double-click on the "Adobe Audition" icon on the desktop.

2. If Adobe Audition is in "Multitrack" mode (opposite page, top figure), click on the "Edit" icon (opposite page, middle figure, circled) to switch to "Edit" mode (opposide page, bottom figure).
3. Click "Start | Computer".
4. Navigate to Z:\Rivendell Import\ .
5. Within this folder are more than 60 subfolders, each representing a Rivendell group. Open the subfolder of the group to which you are ingesting new audio. Some categories have special importers, see on page XX.
6. Within this folder may be one or more subfolders for adding scheduler codes, or for certain special cases. See 14.N. Scheduler Codes on Page 38 and See 15.C.4. Special Importers on Page 88.
7. Return to Adobe Audition.
8. The next step depends on whether you are ingesting from a file or from a CD. Both sets of instructions are on the following two pages. The instructions for "from a file" are on the left-hand page. The instructions for "from a CD" are on the right-hand page.





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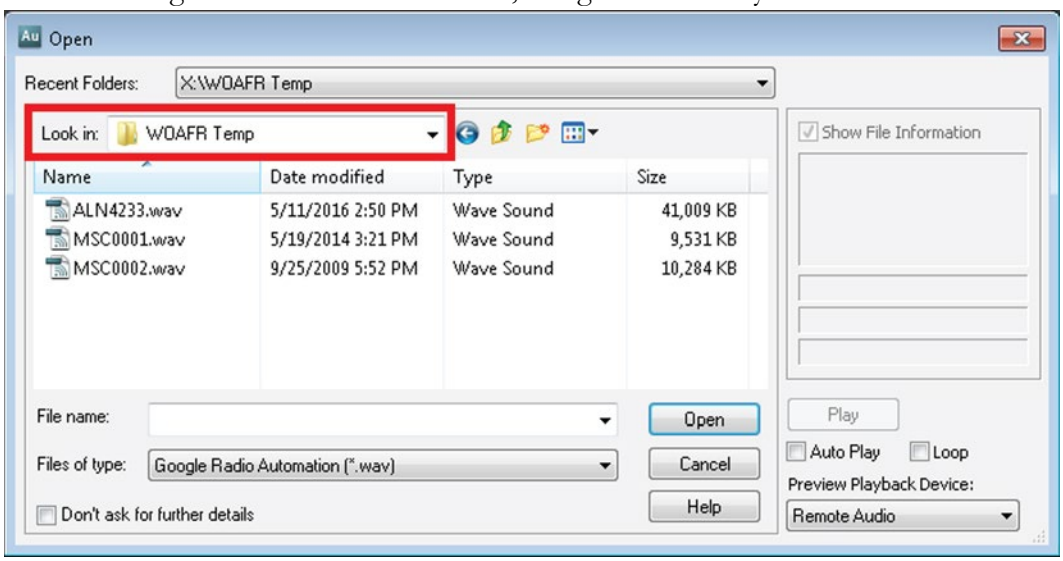
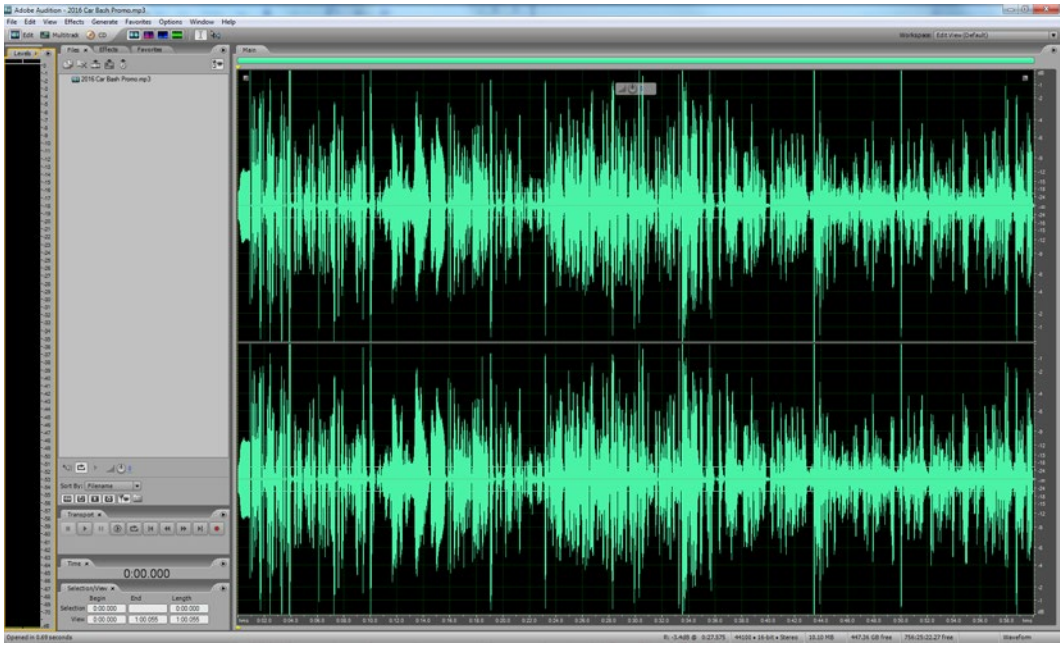
If you are ingesting audio from a file:

1. Click "File | Open...".
2. Using the "Look In" combobox, navigate to where your files are stored.



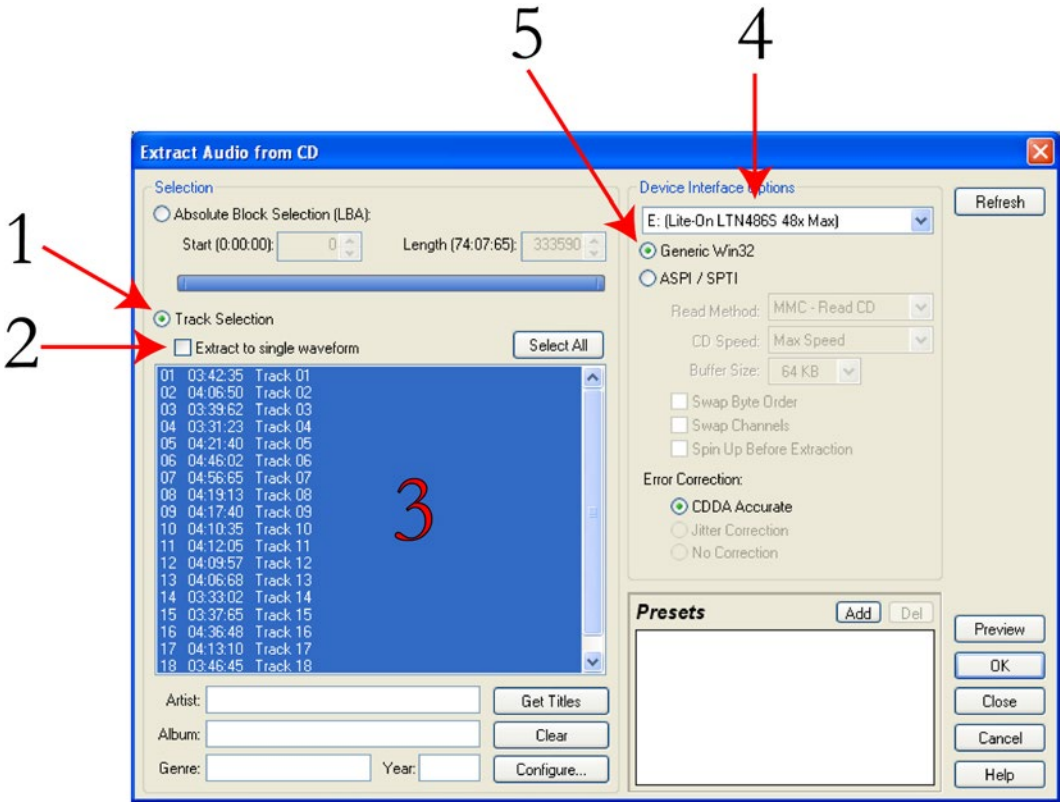
3. Click on your file in the file list.
4. Click "Open".
5. The file will open in the edit screen.



Reader's Notes

If you are ingesting audio from a CD:

1. Click File | Extract Audio From CD…"
2. The "Extract Audio from CD" dialog box will open.



3. Make certain that the "Track Selection" radio button (1) is selected.
4. Make certain that "Extract to single waveform" (2) is unchecked.
5. Select the individual tracks that you wish to ingest (3). CTRL+Click to individually select multiple tracks, SHIFT+Click to select a range of tracks. You may also click "Select All" if you want all of the tracks.
6. If there are no tracks listed, it may be necessary to change the CD-ROM device (4).
7. Make certain that the "Generic Win32" radio button (5) is selected.
8. Click "OK".
9. Audition will now display the "Extracting CD Digital Audio for Track X" dialog box. After a minute or so (depending on how many tracks were selected) the dialog will close and the waveform of the first track will appear.
10. On the left is a list of the files that were extracted. Double-click on one of them to open it in the edit view.

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15.C.1.b. Screening and Editing the Audio

If the audio is a song or a program produced by an entity outside WMUL-FM, it is necessary to screen the audio for inappropriate language. (See 4.C. Inappropriate Program Material Policy and 4.A.3. Station and FCC Policy Sheet in Volume I for what language needs to be removed.)

Listen to each song in its entirety. Do not depend on Internet song lyric sites. Their content is user-generated, often erroneous, and may refer to a different version of the song.

If you encounter material that needs to be edited, there are four methods available. In order from generally the best to generally the worst, they are:

1. Vocal Remove
2. Reverse the Audio
3. Replace with Noise
4. Mute

You may try different methods to determine which one sounds the best for the particular song that you are editing.

Vocal Remove

Vocal remove is the best sounding method, but it only works on a small number of songs. It can only be attempted on stereo recordings. (Do not bother trying to fake it by changing a mono recording to stereo. This function needs a real stereo recording.)

1. Highlight the audio that needs to be edited.
2. Click "Effects | Stereo Imagery | Center Channel Extractor...".
   The "VST Plugin - Center Channel Extractor" dialog box will appear.
3. From the "Effect Preset" combobox at the top, select "Vocal Remove".
4. Click "OK". It will process the file for a few seconds.
5. Listen carefully to the audio. Make certain that the edit removed every bit of the questionable material.
6. If the questionable material is still present, click "Edit | Undo Center Channel Extractor". This method has failed, go to one of the other editing methods.

Reverse the Audio

1. Highlight the audio that needs to be edited.
2. Click "Effects | Reverse".
3. Listen carefully to the audio. Make certain that the edit reversed every bit of the questionable material.

Replace with Noise

1. Highlight the audio that needs to be edited.
2. Click "Generate | Noise...". The "Generate Noise" dialog box will appear.
3. Select "White" for the color.
4. Select "Mono" for the style.
5. Set the intensity to "10".
6. Click "OK".
7. Listen carefully to the audio. Make certain that the edit replaced every bit of the questionable material with noise.

Mute

1. Highlight the audio that needs to be edited.
2. Click "Effects | Mute".
3. Listen carefully to the audio. Make certain that the edit muted every bit of the questionable material.

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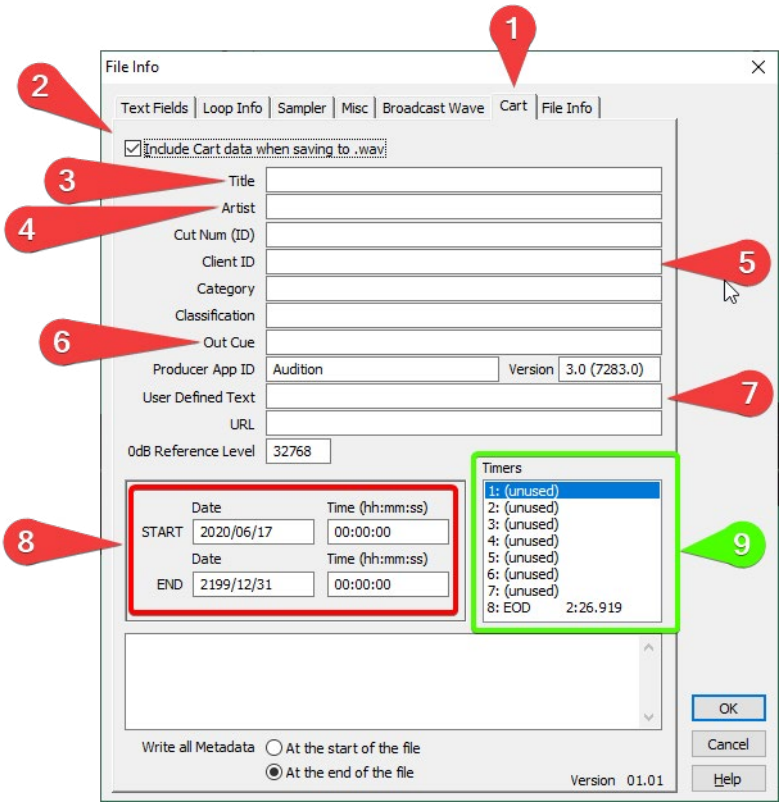
15.C.1.c. Entering the Meta-Data

1. Trim the head of the audio clip to remove any extraneous silence.
2. Hit CTRL+P on the keyboard. The "File Info" dialog box will open.



3. Make certain that the "Cart" tab (1) is selected.
4. Check the box labeled "Include Cart Data when saving to .wav" (2).
5. Input the "Title" (3) of the item.
    - **Songs:** The song title. Do not include featured artists in the title, those belong with the artist.
    - **Promos / PSAs:** The individual title of the promo or PSA. Do not include the words "Promo" or "PSA", that will be obvious because it is in a promo or PSA group.
    - **Program Imaging:** The type and role of the audio. E.G. "Game Intro" or "Rejoin".
    - **Programs:** The individual title of that edition of the program or the episode date. E.G. "Interview with Doc Holiday" or "September 29, 2016".

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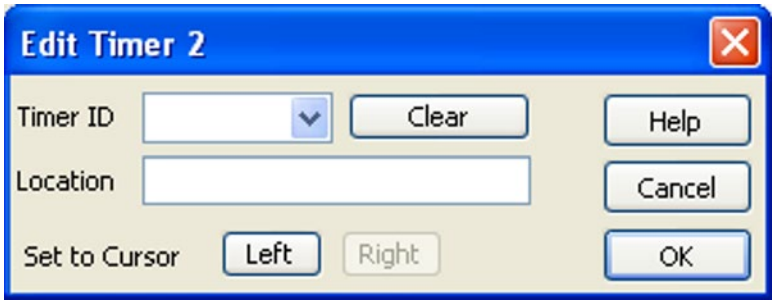
6. Input the "Artist" (4) of the item.
    - **Songs:** The artist of the song, including any featured artists. E.G. "Akon ft Enimem".
    - **Promo:** The subject of the promo. A general station promo would just be titled "WMUL-FM". A promo for sports would be titled "WMUL-FM Sports".
    - **PSA:** The general topic of the PSA. E.G. "Drinking and Driving" or "Environmentalism".
    - **Program Imaging:** The master title of the program. E.G. "Baseball" or "Newscenter 88"
    - **Programs:** The master title of the program. E.G. "Herd Roundup".
7. In the "Client ID" (5) field, input your name.
8. In the "Out Cue" (6) field, input the ending of the item.
    - **Songs:** Whether the song ends Cold or Fade.
9. In the "User Defined Text" (7) field, input the year the song was released, as well as other relavent information such as "Instrumental".
10. The Start and End Date and Time (8) can usually be left alone, unless the item actually needs a start and end date. An example would be a promo for a football game broadcast. The promo should not air before the previous game ends, and should not air after the game broadcast begins.
11. In the "Timers" list box (9), double-click on any of the "(unused)" timers. It does not matter which one. The "Edit Timer" dialog box will open. Whatever number timer you clicked, the dialog box will show 1 below that. The list box starts counting at 1 but the dialog boxes start counting at 0. If you click on timer 1, the dialog box will say timer 0.



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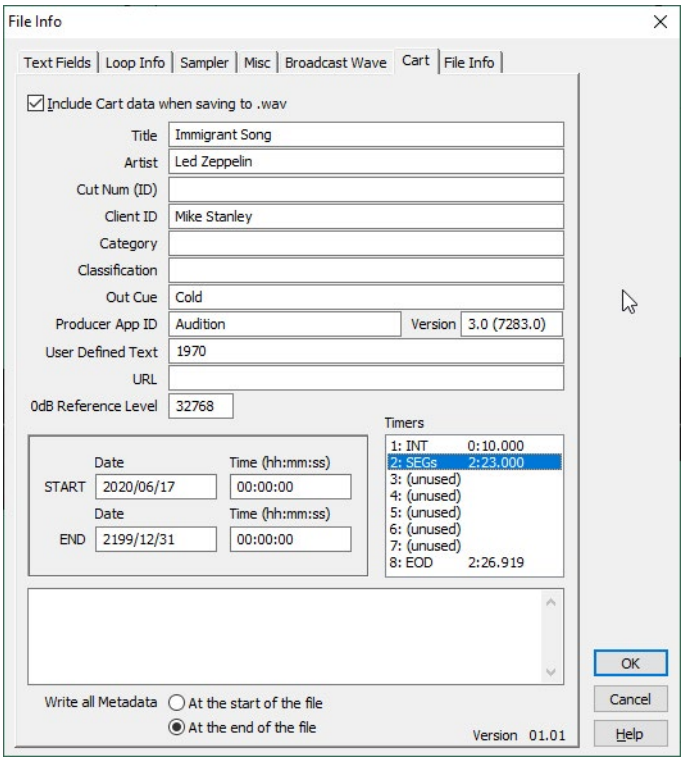
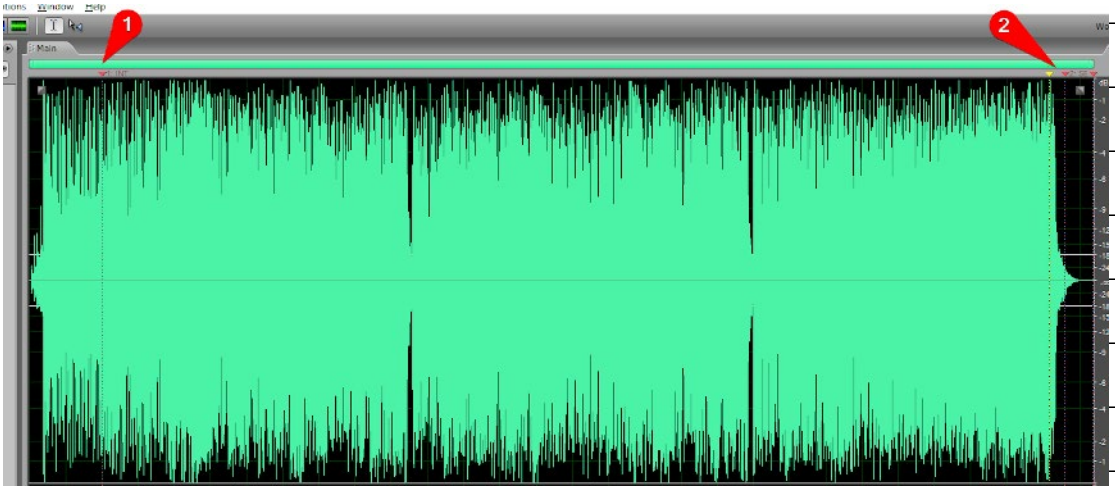
12. Click the "Timer ID" combobox and select "INT". Make certain you select "INT" and not "INT1", or "INT2", etc. The "INT" timer tells Rivendell where the post is in the audio clip. If you know where the post is, enter it now. If you do not, enter "01" and you can change it on the edit screen..
    - **Songs:** The post is the point in the song where the lyrics begin. If the song is instrumental, the post is the beginning of the file.
    - **Promos, PSAs, Programs:** The post is the beginning of the file.
    - **Program Imaging:** For intros and rejoins, the post is the point where the talent should begin speaking. For outros and break-beds, the post is the point where the talent should stop speaking.
13. Click OK on the "Edit Timer" dialog box. It will close.
14. In the "Timers" list box, double-click on another "(unused)" timer. The "Edit Timer " dialog box will open.
15. Click the "Timer ID" drop-down box and select "SEGs". Make certain you select "SEGs" and not plain "SEG", or "SEC", "SEGe", etc. The "SEG" timer is the cross-fade or segue point of the audio. When the computer playback system hits the cross-fade point, it will begin playing the next item. If you know where the cross-fade point is, enter the time now. If you do not, enter a time a few seconds before the end of the song. You will be able to change it on the edit screen if the chosen time is incorrect.
    - **Songs, Program Imaging:** In a song that ends cold, the cross-fade point is the end of the song. In a song that fades out, the cross-fade point is where the music fades below -18 dB and stays.
    - **Promos, PSAs, Programs:** The cross-fade point is the end of the audio.
16. Click OK on the "Edit Timer" dialog box. It will close.
17. At this point the "File Info" screen should appear similar to the figure on the opposite page. The "EOD" timer marks the absolute end of the audio. When the computer playback system reaches the EOD it will stop playing the file. This timer is automatically generated by the program. It defaults to the end of the file. Leave it at the default location.

Reader's Notes



18. Click OK on the "File Info" dialog box. It will close.
19. The "INT" (1) and "SEG" (2) timers should now appear at the top of the audio file.



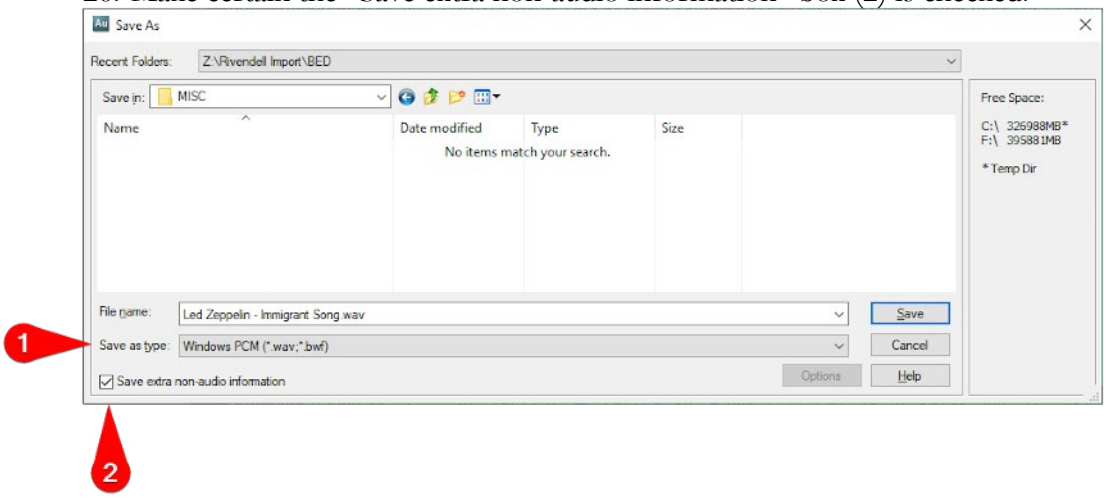
The next graphic is a close-up of the INT timer as it appears at the top of the wave-form window.

Reader's Notes

20. Listen to the file to find the post, then click and drag the "INT" timer to where the post is. Re-listen to check your placement.
21. Listen to the end of the file to find the cross-fade point, then click and drag the "SEGs" timer to that location. Re-listen to check your placement. Make certain not to move the EOD timer by mistake.

15.C.1.d. Saving the File

22. Click on "File | Save Copy As...". Make certain to use "Save Copy As..." and not "Save" or "Save As...".
23. On the "Save Copy As" dialog box, navigate to Z:\Rivendell Import\ followed by the subfolder of the group and scheduler code into which you are ingesting.
24. Generally, the file name can be almost anything, but it will be recorded as the Cut Description in the cart, so keep it professional. Also, the Rivendell importer keeps track of the file names it has already ingested in each folder and will ignore any filename that it has seen before. For best results, use the artist and name of the file. (Note: this memory is per-folder. It will see ALTERNATIV\file.wav and BLUES\file.wav as different files.)
25. Under the "Save as type:" combobox (1), make certain that "Windows PCM (*.wav, *.bwf)" is selected.
26. Make certain the "Save extra non-audio information" box (2) is checked.



27. Click Save.
28. Click over to the Z:\Rivendell Import\ window. You should see the file appear after a few seconds. About 30 seconds to a minute later it will disappear. Longer files take longer to process.

29. If the importing process failed for any reason, the file will remain.
    See 15.C.3. Rejected Files on Page 87
30. The file should now show up in RD Library.

15.C.2. Ingesting with Adobe Audition 2020

1. Double-click on the "Adobe Audition 2020" icon on the desktop. The program will open.

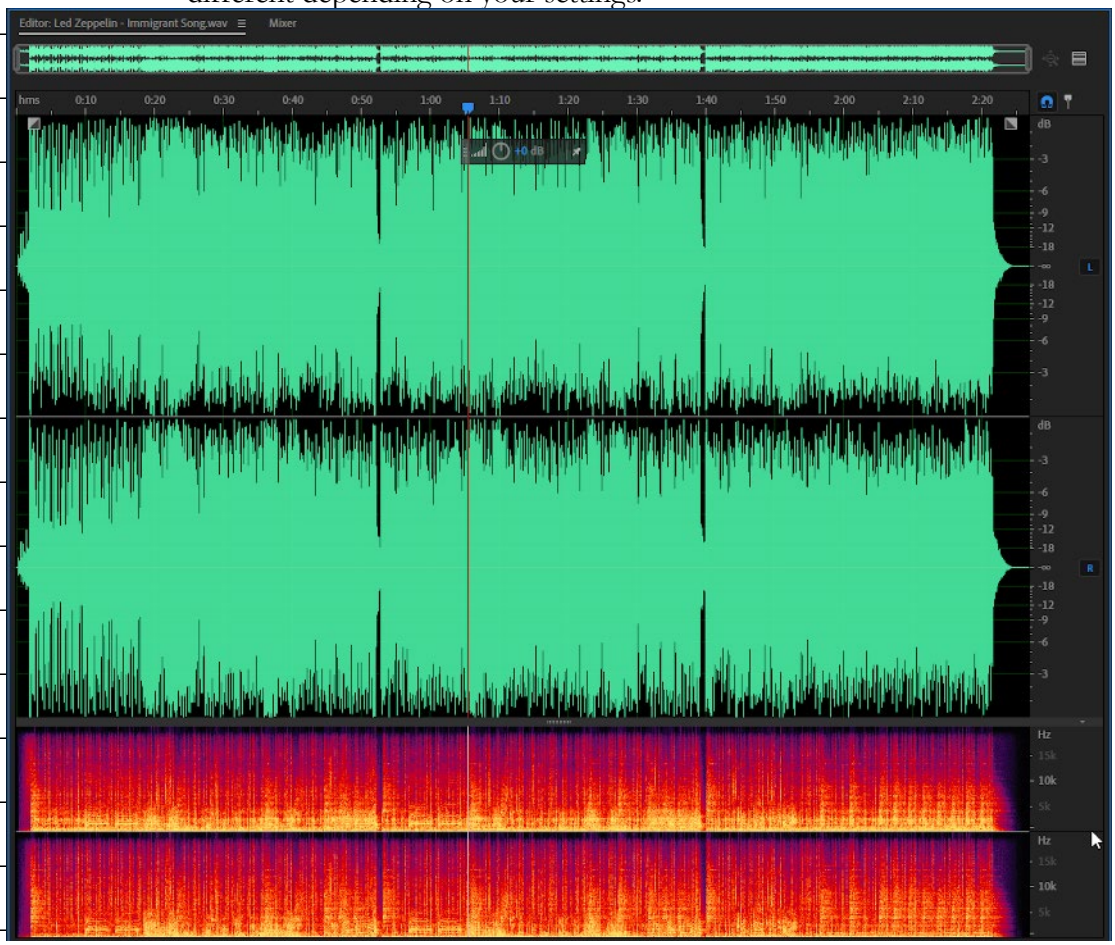
2. Click "Start" | "This PC".
3. Navigate to Z:\Rivendell Import\ .
4. Within this folder are more than 50 subfolders, each representing a Rivendell group. Open the subfolder of the group to which you are ingesting new audio. Some categories have special importers, see on page XX.
5. Within this folder may be one or more subfolders for adding scheduler codes, or for certain special cases. See 14.N. Scheduler Codes on Page 38 and See 15.C.4. Special Importers on Page 88.
6. Return to Adobe Audition.
7. The next step depends on whether you are ingesting from a file or from a CD. Both sets of instructions are on the following two pages. The instructions for "from a file" are on the left-hand page. The instructions for "from a CD" are on the right-hand page.

Reader's Notes

Reader’s Notes

If you are ingesting audio from a file:

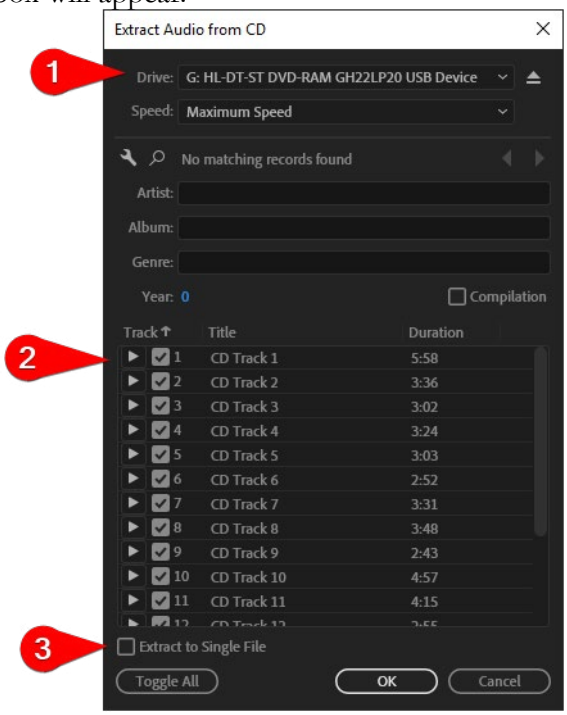
1. Click “File” | “Open...”.
2. Navigate to where your files are stored.
3. Click on your file in the file list.
4. Click “Open”.
5. The file will open in the Waveform screen. Your screen may look slightly different depending on your settings.



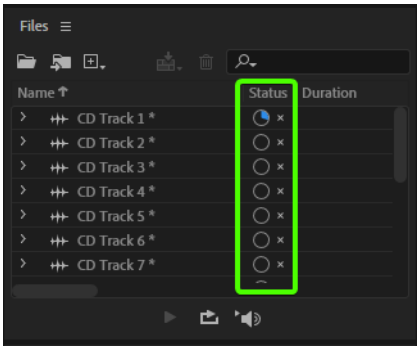
If you are ingesting audio from a CD:

Reader's Notes

1. Click "File" | "Extract Audio from CD". The "Extract Audio from CD" dialog box will appear.



2. If there are no tracks listed, it may be necessary to change the drive (1).
3. Make certain that "Extract to Single File" is unchecked.
4. Check the boxes of the individual tracks that you wish to ingest (2). By default, all tracks are selected.
5. Click "OK". The dialog box will close. A list of files will appear in the "Files" box. A pie chart will display the progress toward extracting each file. In the screenshot, CD Track 1 is about 1/3 done and the remaining tracks have not started. When the pie chart disappears, the track is fully extracted.



6. Double-click on a file in the list to open it in the Waveform screen.

Reader's Notes

15.C.2.b. Screening and Editing the Audio

If the audio is a song or a program produced by an entity outside WMUL-FM, it is necessary to screen the audio for inappropriate language. (See 4.C. Inappropriate Program Material Policy and 4.A.3. Station and FCC Policy Sheet in Volume I for what language needs to be removed.)

Listen to each song in its entirety. Do not depend on Internet song lyric sites. Their content is user-generated, often erroneous, and may refer to a different version of the song.

If you encounter material that needs to be edited, there are four methods available. In order from generally the best to generally the worst, they are:

1. Vocal Remove
2. Reverse the Audio
3. Replace with Noise
4. Mute

You may try different methods to determine which one sounds the best for the particular song that you are editing.

Vocal Remove

Vocal remove is the best sounding method, but it only works on a small number of songs. It can only be attempted on stereo recordings. (Do not bother trying to fake it by changing a mono recording to stereo. This function needs a real stereo recording.)

1. Highlight the audio that needs to be edited.
2. Click "Effects | Stereo Imagery | Center Channel Extractor...".
   The "Effect - Center Channel Extractor" dialog box will appear.
3. From the "Presets" combobox at the top, select "Vocal Remove".
4. Click "Apply". It will process the file for a few seconds.
5. Listen carefully to the audio. Make certain that the edit removed every bit of the questionable material.
6. If the questionable material is still present, click "Edit | Undo Center Channel Extractor". This method has failed, go to one of the other editing methods.

Reverse the Audio

1. Highlight the audio that needs to be edited.
2. Click "Effects | Reverse".
3. Listen carefully to the audio. Make certain that the edit reversed every bit of the questionable material.

Reader's Notes

Replace with Noise

1. Highlight the audio that needs to be edited.
2. Click "Effects | Generate | Noise...". The "Effect - Generate Noise" dialog box will appear.
3. Select "White" for the color.
4. Select "Mono" for the style.
5. Set the intensity to "10".
6. Click "OK".
7. Listen carefully to the audio. Make certain that the edit replaced every bit of the questionable material with noise.

Mute

1. Highlight the audio that needs to be edited.
2. Click "Effects | Silence".
3. Listen carefully to the audio. Make certain that the edit muted every bit of the questionable material.

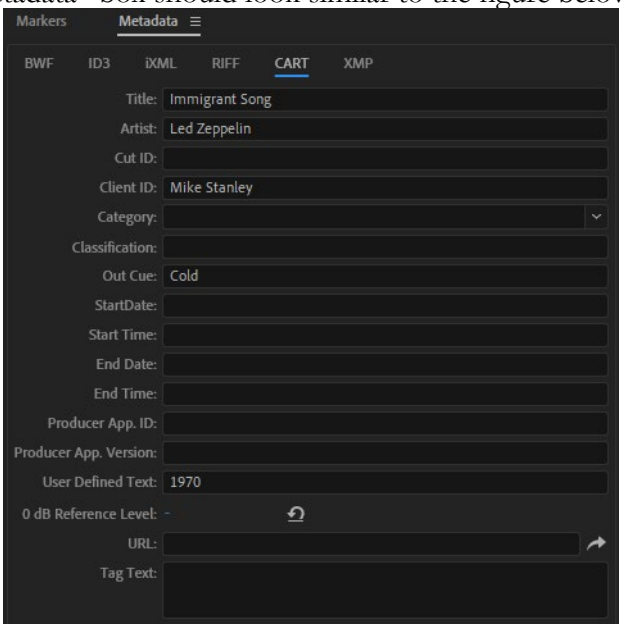
Reader's Notes

15.C.2.c. Entering the Meta-Data

1. Trim the head of the audio clip to remove any extraneous silence.
2. Click the "Metadata" box on the right hand side. If it is not there, click "Window | Metadata" to make it appear.
3. Within the "Metadata" box, click the "CART" tab.
4. Input the "Title" of the item.
    - **Songs:** The song title. Do not include featured artists in the title, those belong with the artist.
    - **Promos / PSAs:** The individual title of the promo or PSA. Do not include the words "Promo" or "PSA", that will be obvious because it is in a promo or PSA group.
    - **Program Imaging:** The type and role of the audio. E.G. "Game Intro" or "Rejoin".
    - **Programs:** The individual title of that edition of the program or the episode date. E.G. "Interview with Doc Holiday" or "September 29, 2016".
5. Input the "Artist" of the item.
    - **Songs:** The artist of the song, including any featured artists. E.G. "Akon ft Enimem".
    - **Promo:** The subject of the promo. A general station promo would just be titled "WMUL-FM". A promo for sports would be titled "WMUL-FM Sports".
    - **PSA:** The general topic of the PSA. E.G. "Drinking and Driving" or "Environmentalism".
    - **Program Imaging:** The master title of the program. E.G. "Baseball" or "Newscenter 88"
    - **Programs:** The master title of the program. E.G. "Herd Roundup".
6. In the "Cliend ID" field, input your name.
7. In the "Out Cue" field, input the ending of the item.
    - **Songs:** Whether the song ends Cold or Fade.
8. In the "User Defined Text" field, input the year the song was released, as well as other relavent information such as "Instrumental".

Reader's Notes

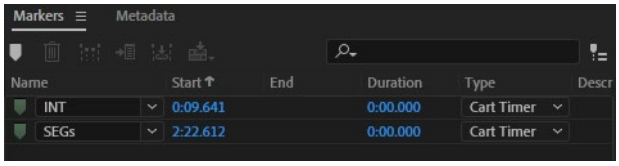
9. The Start and End Date and Time can usually be left blank, unless the item actually needs a start and end date. An example would be a promo for a football game broadcast. The promo should not air before the previous game ends, and should not air after the game broadcast begins.
10. The "Metadata" box should look similar to the figure below.



11. Click the "Markers" box on the right-hand side. If it is not there, click "Window | Markers" to make it appear.
12. Play the audio to find the post in the audio clip. When you have the cursor on the post, hit C on the keyboard to insert a cart marker at that point.
    - **Songs:** The post is the point in the song where the lyrics begin. If the song is instrumental, the post is the beginning of the file.
    - **Promos, PSAs, Programs:** The post is the beginning of the file.
    - **Program Imaging:** For intros and rejoins, the post is the point where the talent should begin speaking. For outros and break-beds, the post is the point where the talent should stop speaking.
13. In the "Markers" box, the marker you just inserted will be highlighted. When first created, all markers have the name "EOD". Change this to "INT" either using the combobox, or by typing directly into the box.

Reader's Notes

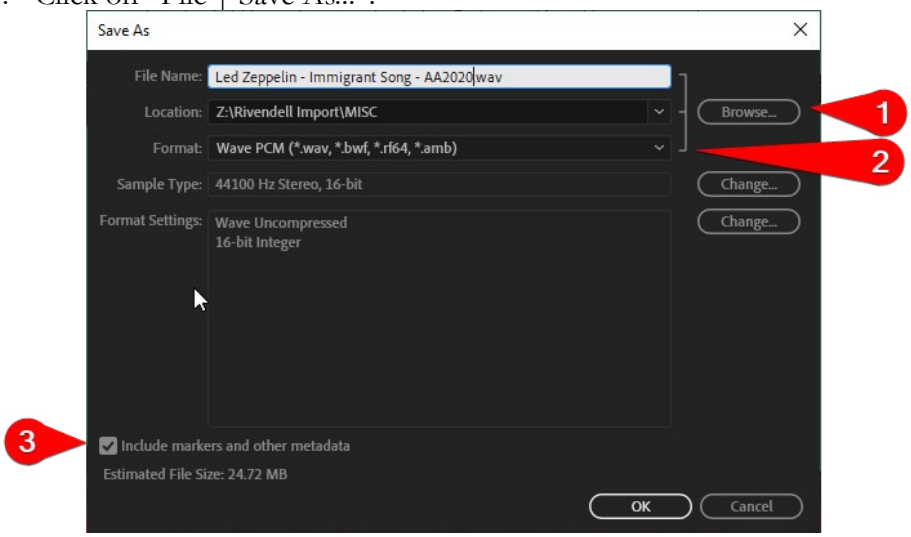
14. Play the audio to find the segue / cross-fade point in the audio. When you have the cursor on the segue, hit C on the keyboard.
    - **Songs, Program Imaging:** In a song that ends cold, the cross-fade point is the end of the song. In a song that fades out, the cross-fade point is where the music fades below -18 dB and stays.
    - **Promos, PSAs, Programs:** The cross-fade point is the end of the audio.
15. In the "Markers" box, the name of the marker you just created will be "EOD". Change it to "SEGs". You will have to type into the box for this marker, the combobox only has "SEG", which will not work.
16. The "Markers" box should look similar to the figure below. The type of both markers should be "Cart Timer". The durations of both should be all zeroes.



17. The "INT" (1) and "SEGs" (2) timers should now appear at the top of the WaveForm. You can drag them to a new position if needed.

15.C.2.d. Saving the File

1. Click on "File | Save As...".



2. On the "Save As" dialog box, click "Browse" (1) and navigate to Z:\ Rivendell Import\ followed by the subfolder of the group and scheduler code into which you are ingesting.

3. Generally, the file name can be almost anything, but it will be recorded as the Cut Description in the cart, so keep it professional. Also, the Rivendell importer keeps track of the file names it has already ingested in each folder and will ignore any filename that it has seen before. For best results, use the artist and name of the file. (Note: this memory is per-folder. It will see ALTERNATIV\file.wav and BLUES\file.wav as different files.)
4. Under the "Format" combobox (2), make certain that "Wave PCM (*.wav, *.bwf, *.rf64, *.amb)" is selected.
5. Make certain the "Save extra non-audio information" box (3) is checked.
6. Click Save.
7. Click over to the Z:\Rivendell Import\ window. You should see the file appear after a few seconds. About 30 seconds to a minute later it will disappear. Longer files take longer to process.
8. If the importing process failed for any reason, the file will remain. See 15.C.3. Rejected Files on Page 87.
9. The file should now show up in RD Library.

15.C.3. Rejected Files

The most common cause of rejected files is duplicate file names. Try a slightly different file name. The second most common cause is file corruption during when saving. Re-save the file.

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Reader's Notes

15.C.4. Special Importers

A few groups have special importers that work a little bit different than the main importers. These importers are under: Z:/Rivendell Import - Special/ .

The most common special importer is the one that imports to a specific cart number. In that case, part of the file name is used to generate the cart number. The file name needs to be in the format "###### - CutDescription.wav" . Where the "######" is the full six-digit cart number. Groups that use this importer have the phrase "(Cart Number)" in the folder name.

When one of these importers detects a file with a cart number that already exists, one of two things will happen depending on the importer.

1. It deletes any existing cuts within that cart and imports just the new file. Groups with this importer setting have the phrase "(Overwrites)" in the folder name.
2. If appends the new cut to the cart, creating a cart with multiple cuts. See 15.B.10. Carts with Multiple Cuts on Page 65. Groups with this importer setting have the phrase "(Appends)" in the folder name.

At the time of this writing, "DJ_IMAGE" and "PROGRAMS" use the overwrites setting, and "ROTATORS" uses the appends setting.

A few other groups have special importers.

- **GOSP_BULL:** The importer for this group always pulls the file into the same cart, 006600, and deletes any existing cuts.
- **PROGRAMS:** Has two importers, the cart number one described above, and a regular importer that finds a free cart number.
- **SP_HRU:** Has two importer, a regular importer, and one in Z:\Rivendell Import - Special\SP_HRU (031400) (Overwrites) that always imports to 031400 for cases when the full program is pre-recorded.

Reader's Notes

16. Glossary

Reader's Notes

This glossary is identical to the ones at the ends of the other two volumes. Some terms are included to provide a general reference and knowledge about the field of radio.

Air Check: (1) A recording of an Airshift that focuses on the announcer. Air checks can be used to critique the announcer's performance or as a component of the announcer's on-air portfolio.
(2) The name of a documentary program that is produced by WMUL-FM.

Airshift: A regularly scheduled time in which the operator is on-air, or in control of Studio A. The operator may be DJing or acting as part of a news, sports, or public affairs program to put programming on the air.

AMBER Alert: (America's Missing: Broadcast Emergency Response) A type of EAS message to alert citizens to, and provide information about, missing children. 12.B. Emergency Alert System (EAS) on Page 90 of Volume II.

Analog: In audio, a way of recording, storing, transmitting, and reproducing sound that produces a sound wave similar to the original wave. Phonograph records, standard audio tape, and speaker/headphone systems are examples of analog audio.

Associated Press Wire Service: A news-gathering cooperative, to which WMUL-FM subscribes. It provides news, sports, and weather copy. The wire service material is used to supplement WMUL-FM's news gathering resources.

AUD: Pronounced "Audition". One of the output busses of the audio console. Typically used with the phone module and to choose which sources are sent to remote sites. 9.A.1. Source Channels on the Console on Page 90 and 9.A.9. The SuperPhone Module on Page 90 of Volume II.

Audio Console: The device at the center of a radio studio responsible for amplifying, routing, and mixing audio signals.
9.A. AudioArts D-75 Audio Console on Page 90 of Volume II.

Audition: (1) One of the output busses of the audio console. See AUD.
(2) Assessing material or talent in advance of production.

Back-Announce / Back-Sell: To announce the song that just played.
E.G.: "That was Seven Years by Single-Celled Paramecium."
See also Front-Announce.

Board of Directors: The group of students that run the day-to-day operations of WMUL-FM. 2.D. Station Hierarchy on Page 128.

Reader's Notes

Board of Governors: The governing board of Marshall University and the ultimate owner of WMUL-FM. Most of the members of the Board of Governors are appointed by the Governor of West Virginia.

Board-Operate / Board-Op: To run the audio console and computer playback. The term is almost exclusively used for a news or sports program, but DJing is also a form of board-oping.

Board-Operator: A person who is board-oping.

Board, The: *See Audio Console.*

Bulletin Board: A pre-recorded announcement listing nearby events that are of interest to the audience.
4.B.6. Community Bulletin Board Policy on Page 128.

Business Hours: The time frame when WMUL-FM is open to the public's business. 9:00 A.M. to 5:00 P.M., Monday-Friday.

Call to Action: Words that direct or encourage someone to do something. E.G.: "Buy my book!" 4.B.4 Commercial Announcements on Page 128.

Cassette, Audio / Cassette Deck: A form of audio tape. Historically used by consumers for music and by WMUL-FM for field recordings (news interviews, etc.).

Channel: An input on an audio console, along with the controls for that input. 9.A.1. Source Channels on the Console on Page 91 of Volume II.

Clock: The list and description of the major events that are to occur during a DJ shift or program.

Codec: An abbreviation of coder/decoder. A device or software program that encodes audio into a digital format for transmission over a modem or internet connection.

Commercial: A commercial is an announcement (usually paid) made on behalf of a for-profit entity. E.G. "Drink Tantrum!". 4.B.4 Commercial Announcements on Page 129.

Compact Disk (CD) / CD Player: A device to play back a digitally encoded disk using a laser that reads the code on the disk.
10.I. CD Players on Page 92 of Volume II.

Control Room: (Or "CR") On audio console markings, the room (on-air studio) containing the audio console. E.G. A "CR Mic" is a microphone in the same room as the audio console. *See also Studio.*

Reader's Notes

Cue: A special buss on the console attached to a small speaker. It allows the operator to preview a piece of audio before placing it on-air. 9.A.4. Using the Cue on Page 92 of Volume II.

Cart Number: The number that uniquely identifys a cart in the in the computer playback system. See also Category, Asset Number. See 14.A. Categories, Asset Numbers, and Cut Numbers in Volume III.

Dead Air: Silence over the air. At WMUL-FM, an alarm will sound when this happens. The alarm will be audible throughout the complex.

Delay Box: A device that delays the audio before it goes over the air. It allows accidental unacceptable material to be removed from live programs. 10.D. Broadcast Delay Box on Page 93 of Volume II.

Digital: In audio, a way of recording, storing, transmitting, and reproducing sound based on the translation of the original sound source into a binary computer language.

Digital Router: A device that allows audio throughout the station to be re-routed. 10.A. Digital Router on Page 93 of Volume II.

Director, Coordinator, Librarian: Different titles for members of the Board of Directors. The different titles reflect slightly different emphasis on the duties of the position. 2.D. Station Hierarchy on Page 129.

Disk Jockey (DJ): An announcer who plays host of a music program.

DJ Shift: An air shift during which the announcer is producing a program of pre-recorded music selections.

EAS: *See Emergency Alert System.*

EAS Receiver Check: A once-a-day check of the EAS receiver.

Emergency Alert System: A federal network for alerting the public of war, natural disaster and other emergency situations. 12.B. Emergency Alert System (EAS) on Page 93 of Volume II.

Equipment Discrepancy Form: A form to alert the Operations Manager of problems with equipment. 5.F.4. Equipment Discrepancy Form on Page 130.

FCC: *See Federal Communications Commission.*

Federal Communications Commission: The federal government entity that regulates radio broadcasting (among many other things).

Feedback Loop: Reamplification of a sound, resulting in a loud squeal from a loudspeaker. This is often caused by microphone pickup of the output of a speaker that is carrying the audio from the microphone.

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Flash Recorder: A device that can record the W-PGM signal to a computer file and copies that file to the file server. 10.E. Using the Flash Recorder in Studio A on Page 93 of Volume II.

Format: A radio station's programming strategy, utilized to attract a particular audience. The mix of all elements of a station's sound, including the type of music played and style of announcing. *See also Music Format.* 5.B.10. Station Format on Page 130.

Format Producer: A subordinate to the Music Director. Each format producer is in charge of a specific format. 2.D.4.b. The Student Board of Directors on Page 130.

Front-Announce / Front-Sell: To announce songs before they are played. E.G.: "Here's The Marionberry Reduction with their new release Redshirts".

Hertz (Hz): A unit of frequency, also called cycles per second. Named for Heinrich Hertz, whose scientific discoveries made radio transmission possible.

Indecency: Indecent programming contains patently offensive sexual or excretory material that does not rise to the level of obscenity. 4.C. Inappropriate Program Material Policy on Page 130.

Legal ID: An announcement that includes the station's call letters followed by its community of license. Must air every hour at the top of the hour. 4.B.1. Station Identification Policy on Page 131.

Levels: The VU level (volume) of a piece of audio. Adjusted with slide-faders and monitored with VU Meters. *See also VU Meter.* 9.A.2. VU Meters on the Console on Page 94 of Volume II.

Logs: *See Operator Logs.*

Marti RPU: A device for sending audio from a remote site back to the station. It uses a 450 MHz radio link. 3.E.1. Marti Remote Broadcast Transmitters on Page 131.

Modulation Monitor: A device for monitoring the actual on-air signal as it is being transmitted. 9.E. Modulation Monitor on Page 94 of Volume II.

MP3 Format: A file format for storing audio files. It uses less space than a WAV formatted file by sacrificing audio quality. MP3s are not to be used at WMUL-FM. The only exception is MP3s that come to the Music Director from music promoters, when no other format is available.

Music Format: A block of time devoted to a particular type of music.

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Music Log: A record of which songs have played during a particular time period. May be required by the Music Director, your format producer, or by WMUL-FM's contracts with performance rights organizations. 8.K. Music Logs on Page 94 of Volume II.

News Package: A audio cut containing a reporter's voice combined with interview sound bites, and natural sound.

Obscenity: A work, taken as a whole, that has sexual material that lacks serious literary, artistic, political, or scientific interest. 4.C. Inappropriate Program Material Policy on Page 131.

On-Air Operator: A person who is in control of the console in Studio A (Control Room) and is monitoring the transmitter.

On-Air Producer: A person who produces material for airing on WMUL-FM.

Operations Log: One of two operator logs that each on-air operator will complete during every air shift. It provides a record of compliance that the transmitter is operating within its authorized power range (90%-105%). It also records compliance with the daily EAS receiver check. 8.C. The Operations Log on Page 95 of Volume II.

Operator Logs: The pair of logs that each operator will complete during every air shift. These are WMUL-FM's official record of what was aired during a particular broadcast day, and who aired it. *See also Operations Log, Program / Announcer Log.* 8. WMUL-FM's Operator Logs on Page 95 of Volume II.

Over-Modulated: When the level of an audio signal is amplified too high and the signal distorts.

Patch Panel: An auxiliary device that allows certain pieces of equipment in the air chain to be by-passed or routed to other destinations through the use of patch cables. 10.B. Patch Panel on Page 95 of Volume II.

Payola: The practice of giving or accepting undisclosed consideration to influence program selection or content. 4.B.*7. Payola and Plugol*a on Page 132.

PGM: Pronounced "Program". One of the output busses of the audio console. Any channel intended to go over the air must be in PGM. 9.A.1. Source Channels on the Console on Page 95 of Volume II.

PICON: Public Interest, Convenience, Or Necessity. Usually shorted to "the public interest". 4.A. You, WMUL-FM and the FCC on Page 132.

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Plugola: Plugola deals with "plugs" by station personnel with respect to services or commodities promoted over the station where the station itself or its personnel have a financial interest in the object being promoted. 4.B.7. Payola and Plugola on Page 132.

Post: The point in a song where the lyrics begin.

Profanity: Language so grossly offensive to members of the public who actually hear it as to amount to a nuisance. 4.C. Inappropriate Program Material Policy on Page 132.

Program / Announcer Log: One of two operator logs that each on-air operator will complete during every air shift. It provides a record of which programming aired when and who produced it. 8.B. The Program / Announcer Log on Page 95 of Volume II.

Programming: The selection and arrangement of music, speech, and other program elements in such a manner that appeals to WMUL-FM's listeners.

Promo: An announcement made by the station that promotes its own programming or events. E.G. "Tune in to Herd Roundup". 3.D.3. Promotional Announcements Policy on Page <OV>.

PSA: *See Public Service Announcement.*

Public File: *See Public Inspection File.*

Public Inspection File: A file containing of certain records about the station. The FCC requires that this file be maintained and made available to public inspection. 3.G. WMUL-FM's Public Inspection File on Page <OV>.

Public Service Announcement: An announcement (usually unpaid) made to provide the public with needed information or to promote the public good. E.G. "Don't Drink and Drive". 3.D.4. Public Service Announcements Policy on Page <OV>.

Required Monthly Test: A test of the Emergency Alert System that includes header codes, attention tone, a script, and end-of-message codes. These tests originate outside WMUL-FM and are retransmitted by WMUL-FM. 12.B. Emergency Alert System (EAS) on Page 96 of Volume II.

Required Weekly Test: A test of the Emergency Alert System that includes only header and end-of-message codes. WMUL-FM receives these tests and originates its own tests. 12.B. Emergency Alert System (EAS) on Page 96 of Volume II.

Reader's Notes

Riding the Gain: The board-operator paying close attention to the volume level of the audio signals to ensure that the program is nor over-modulated for extended periods of time.

SFX: *See Sound Effects.*

Skimmer: A digital device that constantly records what is airing and saves those recordings to computer files. 10.F. Using the Skimmer on Page 96 of Volume II.

Sound Effects: Any sound, other than music or speech, that is used to help create an image, evoke an emotion, compress time, clarify a situation, or reinforce a message.

Sound Recording Performance Complement: A law that restricts the music programming decisions of webcast stations. 4.B.2. "Sound Recording Performance Complement" Policy on Page <OV>.

Station ID: *See Legal ID.*

Studio: When marked on an audio console, "studio" refers to an attached room with additional microphones. (At WMUL-FM, this usually refers to the Classroom Studio.)

SuperPhone: A module on the audio console that helps connect remote sources including telephone lines. 9.A.9. The SuperPhone Module on Page 97 of Volume II.

Underwriting: Donations to the station to cover operating costs or to a specific program. Can also refer to the announcements made in acknowledgment of the donation. 4.B.8. Underwriting Policy on Page <OV>.

Voice-Tracking: A pre-recorded a DJ shift using a computer program to insert voice-over segments between musical selections. The shift is played back at a later time, thus eliminating the need for a live DJ to be on duty during that time. 5.E. Voice-Tracking Policy on Page <OV>.

Volume Unit (VU) Meter: A component of an audio console that measures the audio going through the console and provides a visual readout of loudness. 9.A.2. VU Meters on the Console on Page 97 of Volume II.

WAV Format: Digital sound files stored in a Microsoft pulse-code-modulation format. Typical setting for a WAV format at WMUL-FM is 16-bit, 44.1 kHz, stereo.

Widget: A component of the computer playback system.

Reader's Notes

WOAFR: (Rhymes with 'offer'). Wide-Orbit Automation for Radio. A computer playback system that WMUL-FM used prior to the Summer of 2020. See Volume III.

Working Hours: The hours during which the station is open to staff members for work. 9:00 AM - 9:00 P.M, Monday-Thursday, 9:00 A.M. - 5:30 P.M. Friday.

W-PGM: The audio signal that is being sent to the transmitter, but before it goes through the delay box.

WMUL Air: The audio signal after it has been transmitted and received by the Modulation Monitor.

XLR Connector: A type of three-pin connector commonly used with microphones at the radio station. Some connectors have a push-lever mounted on the female connector that locks the connectors in place. It makes a snap when making the connection. To remove, press the lever and remove the male end by the connector; do not ever pull on the wire.

XY Controller: The user interface for the Digital Router.

10.A. Digital Router on Page 98 of Volume II.