Amb-OS Media, LLC
AMR-100
Version 2.28

Playlist Manual

Revision 4
04/24/16

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OVERVIEW

General Description

The playlist controls all file playback of the AMR-100 Receiver. The programming language for playlists is simple and powerful, but it has many options that take a while to master. For most applications, a simple playlist works for just playing a program at a specific time or on command.

The Standalone Playlist Editor allows changing playlists manually. The Amb-OS User Interface Program builds playlists and is recommended for most users. Creating a playlist with the Amb-OS User Interface automatically creates the sections with basic entries and avoids typographical errors.

WARNING

There is no syntax checking, incorrect syntax will be saved and either not function or produce unpredictable results.

This manual gets into the details of writing and editing playlists. Playlist editing should be done with a plain text editor such as Microsoft Notepad® or the Amb-OS Standalone Playlist Editor. Either of these do not put in format codes, which would prevent the AMR-100 from running the playlist. The Standalone Playlist Editor can be downloaded from www.amb-os.com/support. The appendix has the instruction manual for Standalone Playlist Editor.

Playlists can be saved on a computer with any name for archiving or maintaining different playlists for different receivers. The Amb-OS Standalone Playlist Editor automatically uses *playlist.txt* when it saves it to the receiver.

WARNING

The playlist needs to be named “playlist.txt” to be recognized by the AMR-100.

When using the Amb-OS User Interface to transfer the playlist to the AMR-100, open the playlist with the Amb-OS User Interface and then save it to the AMR-100.

WARNING

Only the Amb-OS Standalone Playlist Editor or the Amb-OS User Interface can transfer playlists to the AMR-100.

Section Description

The playlist has four main sections: Sources, Programs, Schedules and Triggers (identified by the brackets around them – [SOURCES], [PROGRAMS], etc.). The playlist sections in this manual are organized to "flow" down from defining the program to playing it. However, the sections can be put in any order, because the AMR-100 stores each section in memory and interprets it by the heading name. Thus, if desired, the schedules can be at the top of the playlist. See the Detailed Description section for a complete description of each section.

Notes or comments have to be in a section, but not in the default playlist sections. Additional sections can be created with any name other than the default sections. Therefore, a section named [COMMENTS] (not case sensitive) can be used to put comments into the playlist, because The AMR-100 ignores anything not in the Sources, Programs, Schedules or Triggers sections. The Amb-OS User Interface inserts a [LISTING] section at the beginning of the playlist it creates for internal use. That can be used for comments or deleted when modifying playlists.

WARNING

Comments cannot be put in the default playlist sections or put randomly in the playlist. They must be under a section name.

Syntax

Each entry in each section must have a number assigned to it from 1-999 and followed by a comma and then the information for the entry. Each item in the entry is also separated by a comma. If a comma is not used, the entry is invalid and it will not function. For readability, spaces can be put after the commas; however the spaces are ignored.

Each section uses numbers 1-999. While each section has their own set of numbers, an individual section cannot have a number repeated. Sources, Programs, Schedules and Triggers can all have a "1" entry, but each section can only use it once. Triggers cannot have more than 256 entries.

WARNING

If an entry number is repeated in a section, both entries are ignored.

Section Summaries

Sources

Section Title

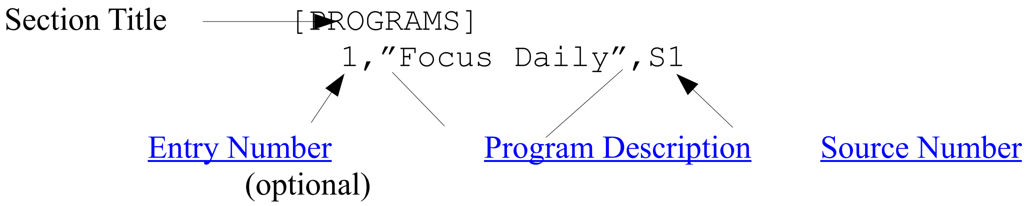
```
[SOURCES]
1,"FOTF_FOF5_##-##-##_01-01.MP2"
```

Entry Number   File name

This defines defines how a program is played and whether it plays before on or after its air date. All programs must have an entry in this section in order to be played. Every entry line must have a number at the beginning of the line followed by a comma and every program must be listed by the exact name of the file on the receiver. The Amb-OS web site lists program names (http://www.amb-os.com/programs) The name must be in quotes and include the extension of the file ("MP2") in the name. The ##-##-## is the wild card for the air date of the program so playlists do not have to be changed every day.

The Entry Items section lists the other parameters can be specified for each entry such relay closures, volume attenuation, fade in and fade out times and more.

Programs

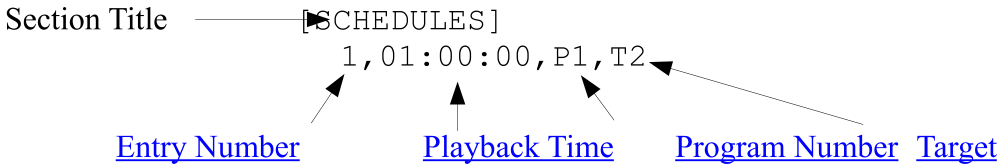


```
[PROGRAMS]
 1,"Focus Daily",S1
```

This defines a program from the sources. Each program entry must have an "Entry number" at the beginning followed by a comma. A single part program has one "Source Number" and multiple part programs have multiple "Source Numbers." Schedules and triggers only play program numbers and not sources.

While only the "Entry Number" and "Source Number" ("1,S1") are required for each entry to function, a "Program Description" entry, in quotes, can be used to describe the program. 1,"Focus Daily",S1 clarifies that program #1 is the Focus Daily program or Source 1 (S1), but does the same thing as 1,S1.

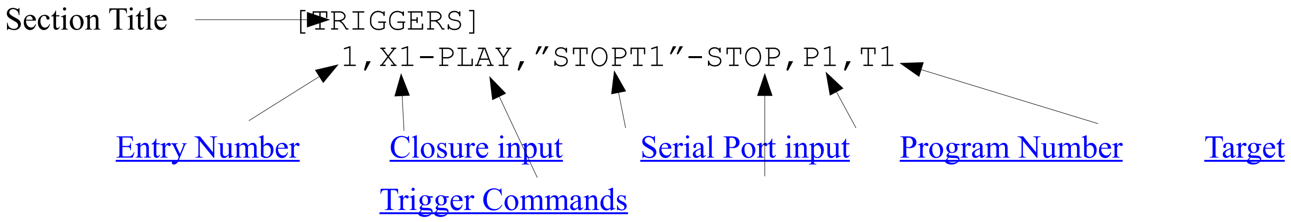
Schedules



```
[SCHEDULES]
 1,01:00:00,P1,T2
```

This sets the time to play back a program and, if desired, a specific day or date. This allows recording or playing a program to air at a fixed time. Each entry must have an "Entry number" followed by a comma. The "Playback Time" uses local time in 24 hour format. The "Program Number" is the "Entry number" found the Programs section. The target, for the most part, is the audio port on the back of the receiver. For a complete discussion see the target section. The required entries are listed. Time and date limitations can also be put into the schedule entry and are explained in the Schedules section.

Triggers



```
[TRIGGERS]
 1,X1-PLAY,"STOPT1"-STOP,P1,T1
```

This defines a playback based on an input closure (relay closure from an automation system or a switch) or a text string from the serial port, therefore an automation system can treat the program as a live satellite feed. The trigger (input closure or serial command) only needs one entry for each event. However, multiple triggers and commands can be used in each entry to start and stop a program. Triggers come from an input closure (switch or relay closure) or a text string input from the RS-232 serial port. The triggers section defines the serial command. See the triggers section and the Trigger Command Table for a complete discussion of the trigger options. The AMR-100 manual has a complete discussion of the serial port.

WARNING

Schedules and triggers can only play program entries as defined in the in the programs section and they cannot play the sources defined in the sources section.

DETAILED DESCRIPTION OF PLAYLIST SECTIONS

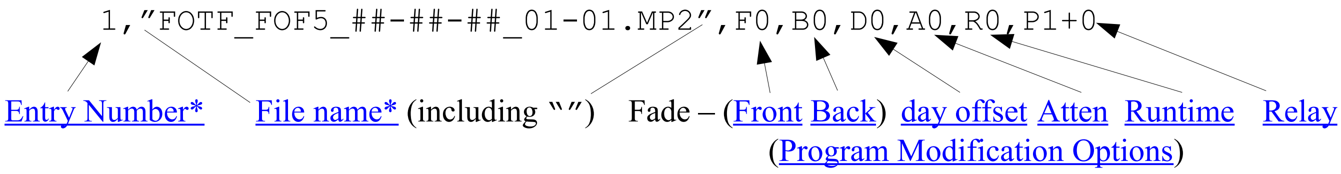
SOURCES

General Description

This section defines the audio programs played by the AMR-100. Each entry has two required parameters separated by a comma: The Entry Number and the audio File Name. The File Name must be the exact name on the receiver with the extension enclosed in quotes. Optional parameters define where the program begins and ends, modifies the playback options and adds relay closures. Using the date wild card (##-##-##) avoids changing the playlist every day.

Entry Items

Items marked by an “*” are required, but all possible entries are listed. Separate each parameter by a comma after the item number and “File name.” The parameters can be put in any order in either upper or lower case.

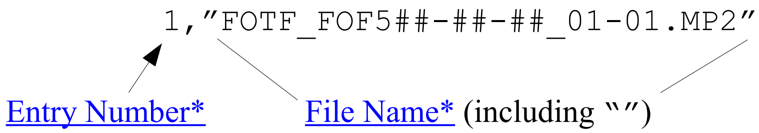


```
1,”FOTF_FOF5_##-##-##_01-01.MP2”,F0,B0,D0,A0,R0,P1+0
```

Entry Number* File name* (including “”) Fade – (Front Back) day offset Atten Runtime Relay

(Program Modification Options)

Minimum entry:



```
1,”FOTF_FOF5##-##-##_01-01.MP2”
```

Entry Number* File Name* (including “”)

*__Entry #__: This is the unique number for every item and must be 1-999. The numbers do not have to be sequential, but they cannot be repeated in the section.

*__File name__: This specifies the name of the file as it exists on the receiver with the MP2 extension and it has to be in quotes. The air date of the file is in MM-DD-YY format. Use the wild card format (##-##-##) for the date to play the program automatically for each day. A complete discussion of file names is found in the reference section.

WARNING

Do not use the renamed entry in the Amb-OS Utility Interface. It must be the file name on the AMR-100 receiver. A traditional “*” wild card CANNOT be used in any part of the file name.

Date Wild Card: The playlist automatically inserts the program date when using the wild card pattern for the date (##-##-##) in the playlist. For example, the Amb-OS system sends the Focus on the Family daily program as “FOTF_FOF5_10-25-16_01-01.MP2” for October 25, 2016. Replacing the date with ##-##-## in the entry lets the AMR-100 play the current day’s program every day without changing the playlist.

WARNING

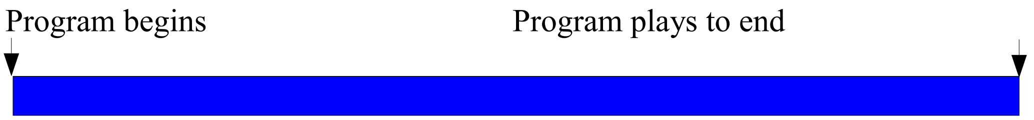
If a specific date is specified (10-25-16) in the file name and not the wild card (##-##-##), then only the program for October 25, 2016 plays. When that file is deleted, nothing plays from this source.

Program modification options control the beginning and ending fade, day offset (play before, on or after air date), attenuation, run time and relay controls. The parameter entries follow the file name and can be put in any order in either upper or lower case separated with a comma.

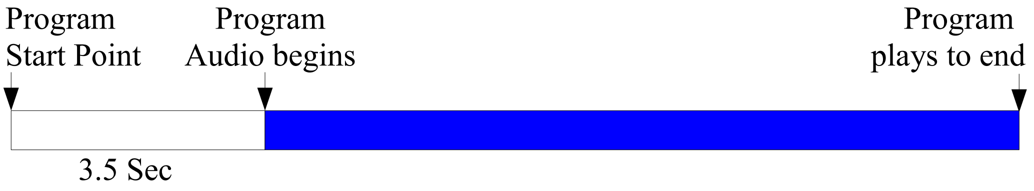
F#.#-#.# (“**F**ront porch”) The time to start and the length of a fade at the beginning of the program. Using “F0” or omitting the parameter starts the program normally. The first number sets how far into the program to start the fade and the second number describes the length of the fade. Omitting the second number starts a program the number of seconds late without a fade.

Examples

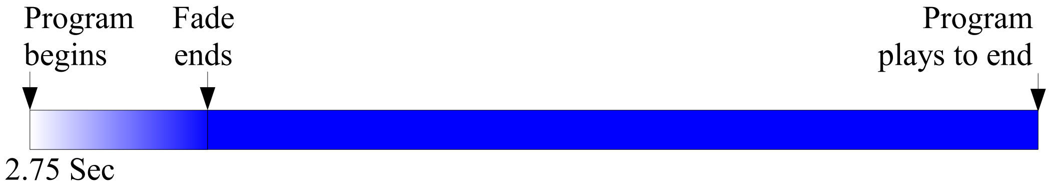
F0: The file starts normally. Omitting the parameter does the same thing.



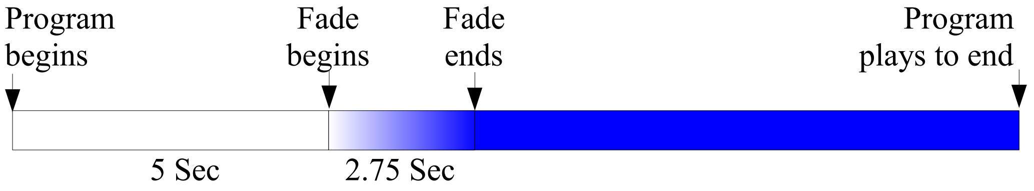
F3.5 or F3.5-0: The file starts 3.5 seconds in to the program at full volume.



F0-2.75: The file starts at the beginning, but takes 2.75 seconds to fade up to full volume.



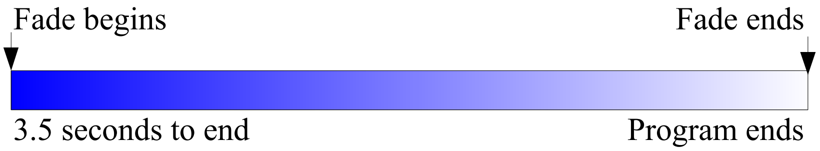
F5-2.75: The file starts 5 seconds into it and takes 2.75 seconds to fade up to full volume.



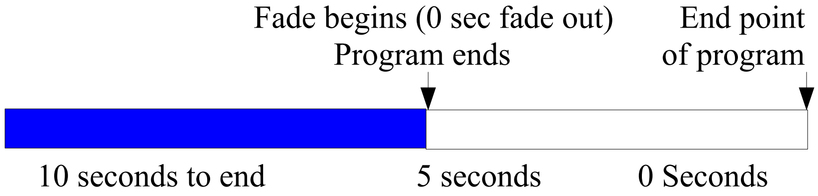
B#.#-#.# (“**B**ack porch”) The time to start and the length of a fade at the end of a program. Using “B0” or omitting the parameter ends the program normally. The first number sets how far from the end of the program to start the fade and the length of the fade to the end of the program. Starting a three second fade more than three seconds before the end of the program will end the program early.

Examples

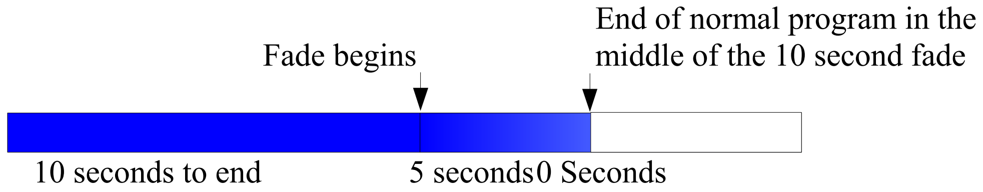
B0-3.5 or B3.5-3.5: The file would start to fade at 3.5 seconds before its normal end.



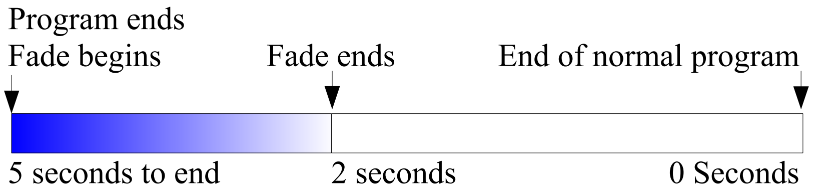
B5-0: The file ends five seconds early with no fade.



B5-10: The file ends in the middle of the ten second fade.



B5-2: The file begins fading five seconds from the end of the program for two seconds and ends the file 3 seconds early, because the fade is shorter than the time remaining in the file.



D+# or D-# The number of days to play a program either before (+) or after (-) its air date – Day offset. “D0” or omitting the parameter plays the program on its air date. To use the parameter the date wild card (“##-##-##”) must be in the file name parameter.

- D# or D+# plays the program before the air date.
- D-# plays the program after the air date.

The AMR-100 and the The Amb-OS User Interface use different references to calculate the day offset. The AMR-100 uses the date the program will play and the Amb-OS User Interface uses the program’s assigned air date. See the Day Offset entry in the Reference section for a full discussion of the schemes.

A program with a date of 11-07-16 and a day offset of 3 (“D3” or “D+3”) plays the program on 11/4/16, because adding three days November 4 is November 7 – the date of the file.

WARNING

Using a day offset greater than when the program arrives on the AMR-100 prevents the program from playing, because no program exists on the AMR-100.

Examples

D0: The file plays on the air date of the file.
D1 or D+1: Plays the file a day early.
D-1: Plays the file a day late. Thus a file scheduled for Saturday, plays on Sunday.

A# The amount of attenuation, in dB, applied to the program during playback. Using “A0” or omitting the parameter plays the program at full volume. The amplitude cannot be increased and it applies to the whole program. Programs on the AMR-100 are normalized to -6 dBfs or +12 dB.

Examples

A0: The program plays at full volume.
A3.5: The file plays with 3.5 dB of attenuation from the full volume of the program.
A96: Effectively silences the program.

R#.# The run time or length of the program in seconds. Using “R0” or omitting the parameter causes the AMR-100 to get the run time of program from the Cart Chunk data in the program. If a program plays before the AMR-100 can read the Cart Chunk data or if the Cart Chunk does not have the run time in it, the run time defaults to 29:30. To insure the AMR-100 has time to read the Cart Chunk data, delay the playback of the program at least a few minutes after a program arrives.

Setting “R” to less than the actual run time of a program stops the program after the specified time. Thus, using “R55” for a **60 second** program plays the program for 55 **seconds** and then stops. For a 25 minute program use “R1500” (60*25), because “R25” would play the program for 25 seconds.

WARNING

“R#” has to be in seconds. An entry of “R25” will play a program for 25 seconds even if the program’s run time is 25 minutes.

Examples

R0: The AMR-100 fills in the run time of the program from the cart chunk data.
R60: Sets the run time for the file to 60 seconds.
R1710: Sets the run time for the file to 28 minutes and 30 seconds.
(28 minutes = 1680 seconds plus 30 seconds = 1710 seconds)

Relay Functions: Relays either close, open or pulse when a program starts, ends or in the program body. Omitting the parameter leaves the relays in their current state. If opened, they remain open and if closed, they remain closed.

Relay Commands

- X (close): Closes a relay. If the relay was already closed, nothing happens. The relay will not open until issuing the open command.
- O (open): Opens a relay. If the relay was already open, nothing happens.
- P (pulse): Pulses a relay. The relay closes for one second and then opens. If the relay was already closed, it opens one second after issuing the pulse command.
- Activate a mapped relay. The relay map name is used and the relay responds as defined.

> **NOTE**
>
> **Relay parameters cannot be issued before a program starts or after the program's run time. Relay commands can be issued after the start or before the end of a program's run time.**

Relay Command parameters *MRPT*

The relay command is followed by the relay number, a "+" (beginning) or "-" (end) and the number of seconds after the program starts or before it ends.

***M**ode: "X" - "X" - Close, "O" - Open and "P" - pulse
***R**elay #: 1-4 or mapped relay, 5 and 6 can be used if disabled for time sync (#5) and alarm (#6)
***P**lace in the program: Beginning ("+") or End ("-")
***T**ime: "XX.XX" – the number of seconds from the beginning ("+") or before the end ("-")

X#+#.# or X#-#.# closes the relay number (X1, X2, X3, etc.) at the beginning ("+") or before the end ("-") of the program with the number of seconds (#.##). The relay remains closed until sending the open command to that relay. If the relay is open, this closes the relay, but if the relay is already closed, it does nothing.

> **WARNING**
>
> **Using "X" (close) parameter without using the "O" (open) parameter, leaves the relay closed until sending the "O" command or the receiver reboots. Use both commands in the source entry: X1+0,O1-0 to close a relay at the beginning of a program and open it at the end of the program.**

Examples

X2+1 closes relay #2 at one second into the program and it stays closed until issuing the "O" command.

X2-1 closes relay #2 one second before the end of the program and it stays closed until issuing the "O" command.

X1+0,O1-0 closes relay #1 at the beginning of the program and opens it at the end of the program.

O#+#.# or O#-#.# opens the relay number (O1, O2, O3, etc.) at the beginning ("+") or before the end ("-") of the program with the number of seconds (#.##). If the relay is closed, this opens the relay, but if the relay is already opened, it does nothing.

This command must be used after using the close command (X#-#.#) otherwise the relay stays closed. Use the same entry line as the close (X#). For example, X1+0,O1-0, closes relay #1 when a program starts and opens it when the program ends.

WARNING

Be sure to use the letter "o" or "O" and not "0" (zero) or the command will not function.

Examples

O1+1.4 opens relay #1 at 1.4 seconds from the beginning of the program.

O1-1.4 opens relay #1 at 1.4 seconds before the end of the program.

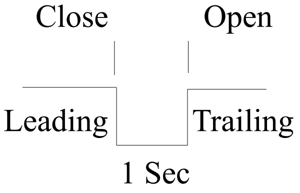
X1+0,O1-0 closes relay #1 at the beginning of the program and opens it at the end of the program.

X2-1,O2-0 closes relay #2 one second from the end of program and then opens it one second later right at the end of the program. This duplicates the "P2-0" command.

P#+#.# or P#-#.# pulses (closes for one second and then opens) the number (P1, P2, P3, etc.). The "+" or "-" specifies the beginning ("+") or the end ("-") of the program. The next number specifies the number of seconds (#.#) from the beginning or end of a program to pulse the relay.

At the front of the program (P1+0), relay #1 closes when the program starts and opens one second later. At the end of the program (P1-0) relay #1 closes at the end of the program and opens one second later.

Leading edge vs. trailing edge: The leading edge of the pulse function is when the relay closes and the trailing edge is when it opens.



If the automation system reads the leading edge, using "P1+0" (pulse at the beginning of the program) and "P1-0" (pulse at the end of the program). If the automation needs the trailing edge, use "P1-1" to pulse the relay one second before the end of the program and open at the end. No way exists to activate a relay before the audio starts; therefore no way exists to have the automation read the trailing edge at the beginning of a program without being one second into the program audio.

Examples

P1+0 pulses relay #1 at the beginning of the program (closes relay #1 for one second and then opens it).

P1-0 pulses relay #1 at one second at the end of the program (closes relay #1 for one second and then opens it).

M*mapname*+#.# or M*mapname*-#.# activates the relay assigned in the relay maps. The "*mapname*" is the mapped relay name. The "+" or "-" specifies the beginning or the end of the file. The next number is the number of seconds (#.#) from the beginning or the end of the program. Maps can be set to close, open or pulse a relay. See the chart with the default relay mappings for the default settings. A full discussion on relay mapping is found the AMR-100 Instruction Manual (http://www.amb-os.com/support.html).

Networks use relay mapping for consistency in programming individual stations on their network. The playlist for the AMR-100 normally addresses each relay individually so the relay mapping is unnecessary, they still work.

Examples (based on the default mapping of the relays):
MP1LE+0: Pulses relay #1 at the beginning of the program.
MB1LE-2: Pulses relay #2 two seconds before the end of the program.

Important Relay Notes:

1. Using the close function (X#) must be used with the open function (O#) to restore the relay or the relay stays closed even after the program ends.
2. To keep a relay closed for the entire length of the playback use the following: X1+0,O1-0
3. The pulse command (P#) closes the relay for one second and then opens the relay automatically.
4. If a relay is closed, the "P#" command will only open the relay one second after being issued.
5. If a relay is closed, the "X#" command does nothing to the relay. Likewise, if the relay is already opened, the "O#" command does nothing.
6. Relays cannot be activated before the start of a program or after a the run time of a program.
7. The AMR-100 has six relays; however relays #5 and #6 default to system functions so, normally, only relays #1-#4 are used for programming, The default function for relay #5 is for the time sync and #6 is for the alarm. However, either or both of those functions can be disabled to all them to be used for program functions. See the AMR-100 Operation manual on how to disable these system functions for relays #5 and #6 and use them for program control.
8. Without disabling the time sync function in the AMR-100 to sync clocks, using "X5" (close relay #5) will sync the clock at whatever time the program played.
9. Without disabling the alarm function in the AMR-100, using "X6" (close relay #6) will trigger the alarm whenever the program played.

WARNING

To use relays #5 and #6 for program functions, the corresponding system function must be turned off in the AMR-100.

Typical Source Entries

All Parameters Entry:

1,“FOTF_FOF5_##-##-##_01-01.MP2”,R1710,F2-2,B5-4.5,A3,D1,MP1LE-1

Run time (R1710): Sets the run time to 28:30 (1,710 seconds)

Front Porch (F2-2): Starts the program two seconds from the beginning with a two second fade up.

Back Porch (B5-4.5): Begins fading out at five seconds before the end of the program and stops the program in 4.5 seconds (the length of the fade).

Attenuation (A3): The program’s audio level drops 3 dB lower than its recorded value.

Day Offset (D1): Plays the program one day before the air date of the program.

Relay (MP1L3-1): Pulses #1 (the default mapping of P1LE) one second before the end of the program (1709).

Correct Entries

1,“FOTF_FOF5_##-##-##_01-01.MP2” (*minimum entry*)

Defaults “R,” “F,” “B,” “D,” and “A” (full volume) and no relay commands are issued.

1,“FOTF_FOF5_##-##-##_01-01.MP2”,R0,F0-0,B0-0,A3,X3+0,O3-0

Program plays on the air date (no “D#”) It attenuates the level by 3 dB (A3), the run time comes from the program’s Cart Chunk data (“R0”), closes relay #3 at the beginning of the program (“X3+0”) and opens relay #3 at the end of the program (“X3-0”).

1,“BTTB_BTB5_##-##-##_01-01.MP2”,D1,P1-0

Defaults “R,” “F,” “B,” and “A” (full volume) Plays Back to the Bible one day early (D1) and pulses relay #1 at the end of the program (“P1-0”).

1,“FOTF_FOF5_##-##-##_01-01.MP2”,P1-1

Defaults “F,” “B,” “D,” and “A” (full volume). Pulses relay #1 one second before the end of the program (“P1-0”).

1,“FOTF_FOF5_##-##-##_01-01.MP2”,R1710,X1+0,O1+1

Defaults “F,” “B,” “D,” and “A” (full volume). The run time is 28:30 (1,710 seconds) and closes relay #1 at the beginning of the program (“X1+0”) and then opens it one second later (“X1+1”) duplicating “P1+1” (pulsing relay).

Incorrect Entries (The problem of each entry is in **bold**).

Date Entry:

1,“FOTF_FOF5_**09-07-15**_01-01.MP2”,R1710,P1-1

Because the file name is “09-07-15,” only the program dated for 09-07-15 plays. After the file is purged, nothing plays. Use the wild card format (##-##-##) for the date.

Bad Time Entry:

1,“FOTF_FOF5_##-##-##_01-01.MP2”,**R28.5**,X3+0

The run time is specified as 28.5 seconds, but the program is 28 minutes, 30 seconds. After 28.5 seconds, the program stops. Either set the run time to 1,710 seconds “R1710” (28 minutes * 60 seconds for 1,680 seconds + 30 seconds for a total of 1,710) or use “R0” or omit the entry to get the run time automatically.

Close Relay with no open relay Entry:

1,“FOTF_FOF5_##-##-##_01-01.MP2”,R1710,**X3+0**

Relay #3 closes at the beginning of the program. However, the relay does not open at the end of the program. Add “O3-0” to open the relay at the end of the program.

Open Relay has a “0” and not the letter “O” for the parameter:

1,“FOTF_FOF5_##-##-##_01-01.MP2”,R1710,X1+0,**01+0**

Relay #1 closes at the beginning of the program. However, the relay stays closed at the end of the end of the program, because the parameter uses zero (“0”) and not the letter “O.”

Sample Sources Section Entries

```
[SOURCES]
1,”FOTF_FOF5_##-##-##_01-01.MP2”,R1710,P1-0
2,”FOTF_ODY1_##-##-##_01-03.MP2”,R0
3,”FOTF_ODY1_##-##-##_02-03.MP2”,R0
4,”FOTF_ODY1_##-##-##_03-03.MP2”,R0,P1-0
5,”FOTF_PIN5_##-##-##_01-01.MP2”,R60
```

Description

Entry 1 is a one part program that plays 28:30 (R1710) and relay #1 pulses at the end of the program. Remember, with the Amb-OS system, normally use “R0” or omit it so the run time of a program gets set automatically.

Entry 2 is part one of a three part program and the run time comes from the Cart Chunk data in the program. This compensates for varying length of the segments from day to day.

Entry 3 is part two of a three part program with its run time taken from the Cart Chunk data in the program.

Entry 4 is part three of a three part program, its run time comes from the Cart Chunk data in the program, and it closes relay #1 at the end of the third part. When played as one program, all three sections play back to back and relay #1 would only pulse at the end of the third part signifying the end of the whole program. Adding “P1-0” at the end of each segment could allow an automation system to play spots between each segment.

Entry 5 is a one part program that is 1 minute (R60) with no relay activity. Remember, with the Amb-OS system, normally use “R0” or omit it so the run time of a program gets set automatically.

Combined Playlist

This section defines the sources. Because the AMR-100 retrieves the run time, not using the “R#” parameter insures the run times reflect the actual program length.

```
[SOURCES]
1,”FOTF_FOF5_##-##-##_01-01.MP2”,P1-0
2,”FOTF_ODY1_##-##-##_01-03.MP2”,D3
3,”FOTF_ODY1_##-##-##_02-03.MP2”,D3
4,”FOTF_ODY1_##-##-##_03-03.MP2”,D3,P1-0
5,”FOTF_PIN5_##-##-##_01-01.MP2”,P1-0
```

PROGRAMS

General Description

This section defines the programs played by AMR-100. Each entry has two required parameters separated by commas: the Entry Number and source number. The source number points to the entries in the sources sections and allows a multiple part program to be treated as a single program or to link several spots together. The "Entry Number" becomes the program number. An optional field, to describe the program, can be added between the required entries and must be in quotes.

Entry Items

Items marked by an "*" are required, all options are listed. Each entry is separated by a comma.

```
1,"Focus Daily",S1
```

Entry Number* (required) Program Description (optional) Source Number* (required)

Minimum entry:

```
1,S1
```

Entry Number* Source Number*

***Item #**: This is the unique number for every item from 1-999. The numbers do not have to be sequential, but they cannot be repeated in the section.

Program Description: Identifies a name for the program and it must be in quotes. While optional, this can quickly identify the source assigned to the item number. "Focus Daily" describes the program and it must be enclosed in quotes.

***Source**: This is the number used in the sources section assigned to a program. Because multiple sources can be assigned to individual items, schedules and triggers only play the programs defined in this section. The "S" refers to the sources section and the "1" refers to entry number in the source section. Only an "S" with the entry number in the sources section works.

Multiple Sources: Programs can have multiple source entries in it separated by a commas (S3,S4,S5).

Schedules can only play all the sources in the program entry and in the order listed. If the sources are entered as S3,S1 and S2, they play in that order.

Triggers can play all the sources in the order listed in the program, but they can also play one source at time, replay a single source or skip a source.

Example

```
1,"Adventures in ODY",S1,S2,S3
```

Multiple Sources – Sequential Playback: A schedule plays the sources in the order listed. A trigger using "PLAY" plays one source at a time, but using "PLAYALL" plays the parts in the order listed.

Multiple Sources – Overlay Playback: A second source can also play over the first source by using two or more sources in a program entry. The main program must be first in the list and the second and subsequent sources specify the source to play and when it plays, in seconds (##.#) and how much to attenuate the main source (##) when the overlay source plays over the main source. The order of the subsequent programs does not matter, because they play at the time specified; however, keeping them in time order can avoid confusion when reading the playlist.

The program list has the following:

1,"(optional name)",S1(main),S2-##.#-##(overlay source),S3-##.#-##(overlay source)

Notes:

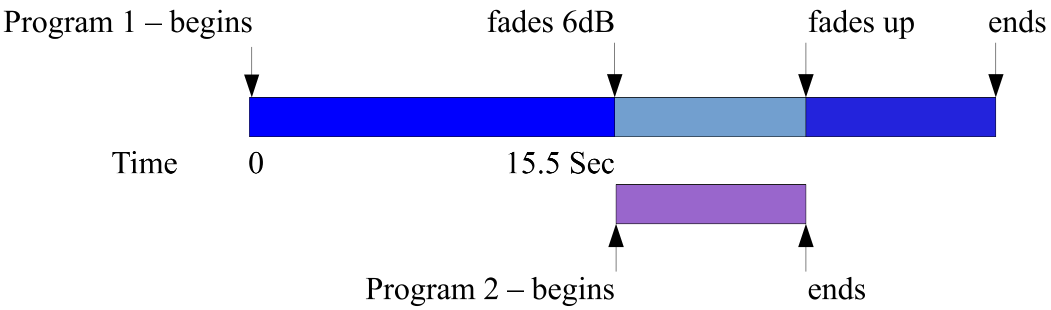
- The main source must be listed first
- Only one overlay source is required
- The subsequent overlay sources can be put in any order, because they play at the time specified in the source listing.
- If using more than one source to overlay, the overlay sources cannot overlap or the main program stops when a third program plays on the same target.

WARNING

Only two programs can play out the target at the same time. If a third program starts while two programs are playing, the first program stops playing regardless of the amount of time left to play.

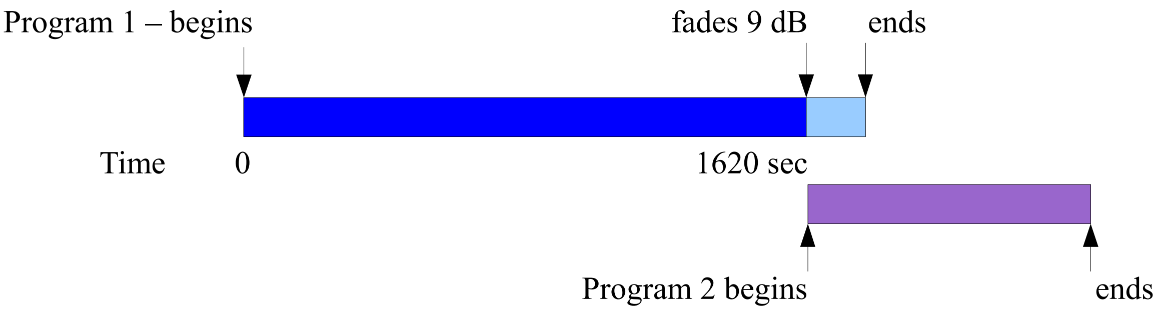
Examples

```
1,"PROGRAM1",S1,S2-15.5-6
```



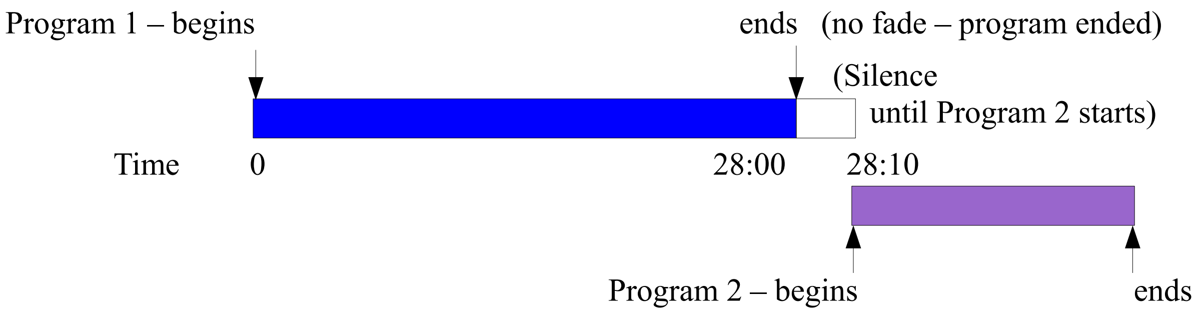
If the overlay programs ends after the main program finishes, the overlay program plays in entirety. For example, a 28 minute main source has a one minute overlay scheduled at 27:30. The overlay starts at 27:30, main source ends at 28:00 and the overlay ends at 28:30.

```
1,"PROGRAM1",S1,S2-1650-9
```



If the scheduled time of the overlay exceeds the total length of the main source, the overlay source plays at the time specified after the start of the main source and plays in its entirety. For example, a 28 minute main source has an overlay timed at 1790 (28:10). The main source ends at 28 minutes and, after ten seconds of silence, the entire overlay source plays. Because the overlay happens after the main source ended, the fade parameter does nothing.

```
1,“PROGRAM1”,S1,S2-1790-12
```



Overlay in Schedules

```
[SOURCES]
1,”MINX_PRG5_##-##-##_01-01.MP2”
2,”MINX_OV15_##-##-##_01-01.MP2”
3,”MINX_OV25_##-##-##_01-01.MP2”

[PROGRAMS]
1,“PROGRAM1”,S1,S2-15.5-12,S3-1680-15

[SCHEDULES]
1,13:30:00,P1,T1
```

In the example above, S1, S2 and S3 are the program parts.

- S1 is the main program and starts playing at 1:30 PM (defined in [SCHEDULES]).
- S2 starts at 15.5 seconds after the main program starts and reduces S1 by 12 dB.
- S3 starts at 1680 seconds (28 min.) into the main program and reduces S1 by 15dB.

Overlay in Triggers

Triggers use the “overlay#” commands to play another program over a currently playing program. The first program can be started with a schedule or a trigger. The “overlay#” plays the second program over the first program.

```
[TRIGGERS]
1,”PLAY-OVERLAY”-OVERLAY9,P2,T1
```

This example plays program 2 (P2) over a currently playing program and fades it by 9 dB. See the “overlay” discussion in the Reference section

Using “play” to trigger program 1 in the example above plays each part one at time and ignores the attenuation amount. Using “playall” plays all three parts sequentially and ignores the attenuation.

WARNING

Triggers do not read the attenuation parameter in the program list so the overlay audio and the main program play at full volume.

Typical entries

1, “Focus Daily”,S1

Uses entry #1 in the sources section with a program description.

1,S1

Uses entry #1 in the sources section without a program description (does the same as above).

2, “Odyssey Weekend – 3 parts”,S2,S3,S4

Uses entries #2, #3 and #4 in the sources section as a single program with a program description.

Sample Program Section Entries

```
[PROGRAMS]
1,”Focus Daily”,S1
2,”Odyssey Weekend – 3 parts”,S2,S3,S4
3,”Washington Watch – 1 minute”,S5
```

Description

Entry 1 uses source #1 as program 1.
Entry 2 combines sources #2, #3 and #4 together for a single program as program 2
Entry 3 uses source #5 as program 3

Combined Playlist

As of this point, the plays looks like this with the [SOURCES] and [PROGRAMS] defined.

```
[SOURCES]
1,”FOTF_FOF5_##-##-##_01-01.MP2”,P1-0
2,”FOTF_ODY1_##-##-##_01-03.MP2”,D3
3,”FOTF_ODY1_##-##-##_02-03.MP2”,D3
4,”FOTF_ODY1_##-##-##_03-03.MP2”,D3,P1-0
5,”FOTF_PIN5_##-##-##_01-01.MP2”,P1-0
```

```
[PROGRAMS]
1,”Focus Daily”,S1
2,”Odyssey Weekend – 3 parts”,S2,S3,S4
3,”Plugged-In Review – 1 Min”,S5
```

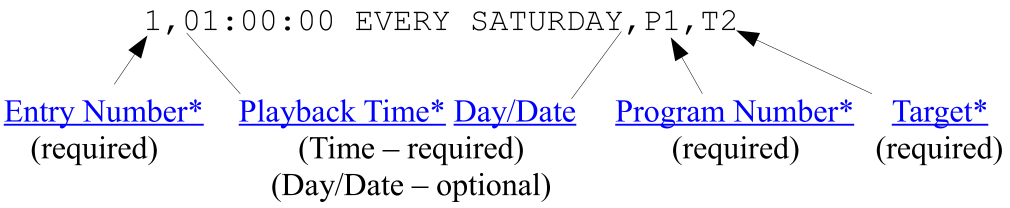
SCHEDULES

General Description

This section tells the AMR-100 what time, day or date a program plays. Each entry has four required items and separated by commas: the entry number, the time field, program and target. The time/day and target fields are complex and have many options. The charts in the reference describe these options.

Entry Items

Items marked by an "*" are required, but all options are listed. Programs and targets work identically with schedules and triggers.



```
1,01:00:00 EVERY SATURDAY,P1,T2
```

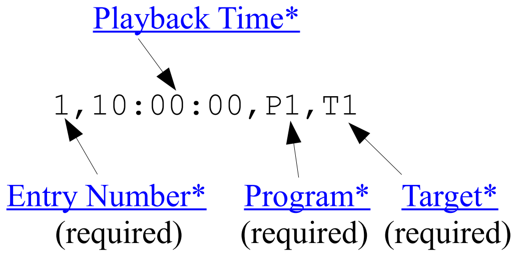
Entry Number*
(required)

Playback Time* Day/Date
(Time – required)
(Day/Date – optional)

Program Number*
(required)

Target*
(required)

Minimum Entry:



Playback Time*

```
1,10:00:00,P1,T1
```

Entry Number*
(required)

Program*
(required)

Target*
(required)

***Entry #**: This is the unique number for every item in the of 1-999. The numbers do not have to be sequential, but they cannot be repeated in the section.

***Time**: Every entry must have a time to execute. While other optional limitations can be used, only the time, in 24 hour format, is required.

Time Notes:

- The time is local time in 24 hour format (HH:MM:SS) in local time unless using the "Zone Designators" ("E" – ET or "G" – GMT with no space)
- Single digits have a leading "0" (8:05 = 08:05:00)
- Midnight is 00:MM:SS
- Omitting the seconds executes at HH:MM:00

WARNING

The entire time entry needs to follow the entry number separated by a comma and the date/day options must be separated by a space or it will not execute.

Day/Date and Date Range: This defines when a schedule entry executes and can also limit the day or date(s) to execute. A space separates the time and date variables and a "-" separates ranges.

NOTE

Without and day/date parameters, the schedule entry executes every day. A weekday program does not play on the weekend, because no program for the weekend exists.

Due to the wide variety of options and the similarity with triggers, see the Time Field and Date Range areas in the Reference section for a detailed discussion of the time restrictions. Only a summary for each parameter is listed here.

Day Range: Limits the days of the week a schedule executes by including or excluding days, days of the week or a range of days or specific days. Omitting this means the schedule executes every day of the week.

Day ranges (Sunday-Saturday) use a "-" to separate days.

Day Description: Uses a phrase to execute an entry and cannot be in quotes.
Every Monday-Friday executes the schedule every week day
Every Saturday – executes the schedule entry on Saturday
Every Fourth Friday – executes the schedule entry only on the fourth Friday of the month

Day String text ("SMTWTFS" in quotes) limits execution on specific days of the week and must follow a numeric date range (MM/DD/YYYY-MM/DD/YYYY – the year is optional) using a "-" to separate the parameters. Any alphanumeric character (1, 2, a, y, etc.) in the string means the schedule executes and any non-alphanumeric character (!, @, #, $, %, ^, etc.) prevents the schedule from executing. Using the first letter of the days of the week to execute a trigger and a "-" exclude a day of the week makes reading the string easier.

"`-M-W-F-`" executes the schedule on Monday, Wednesday and Friday

For a more complete discussion of the day text see the day text section in the Reference section.

WARNING

The Day Description String must not be enclosed in quotes and follow a date or date range.

Date Range: Specifies dates or a range of dates to execute the schedule including specific days, months and dates. Use a "-" to separate the ranges without spaces. Mathematical operations add dates, for example, 2/28+1-3/31 executes the day after February 28th (whether it is February 29th or March 1st) to March 31st. Using one date (07/01-) executes every day after July 1 in perpetuity. These can be combined with the Day Range.

Time and Date Range Examples:

12/25: Only plays the program on Christmas day.

12/24-12/31: Plays the program from Christmas Eve to New Year's Eve.

01/01/2015-12/31/2016-"-M-W-F-": Only plays in 2015 and 2016 on Mondays, Wednesdays and Fridays and quits on 01/01/2017. Put the date before the day restriction.

01/01/2016-12/31/2016 Every Fourth Monday-Friday: Only plays in 2016 and only on the fourth Mondays-Fridays.

6/1-8/31-"S-----S": Plays the program only in June, July and August and only on Saturday and Sunday. Put the date before the day restriction.

Fourth Thursday of November+1-12/31: Plays the program from the Friday after Thanksgiving to New Year's Eve.

Second Sunday of March to First Sunday of November: Only plays during Daylight Saving Time.

01/01/2016- Allows playing the program beginning on January 1, 2015 and after that without ending, because no ending date was used. The "-" after date has to be included. This cannot proceed the day string ("SMTWTFS").

Due to the wide variety of options, see the Time Field and Date Range areas in the Reference section for a more detailed discussion of the time restrictions.

***Program Number**: This is the number of the program from the programs section that plays at the scheduled time. Only one program can used per schedule. "P1" means the program listed as entry #1 in the Programs section.

WARNING

Using a source entry number (S1) will not play.

Two events scheduled at the same time on the same target only plays the higher numbered event. In the example below, event #1 does not play and event #2 will play.

```
1,10:00:00,P1,T1
2,10:00:00,P2,T1
```

WARNING

Two programs scheduled at the same time out the same port will only play the highest number event.

To play two programs on the same target (the programs play on top of each other), change the time of the one of the events even if it is by a second. In the example below, event #1 plays first and then, one second later, event #2 plays on top of the first program.

```
1,10:00:00,P1,T1
2,10:00:01,P2,T1
```

To play two different programs out two different targets, schedule the events at the same time with different targets. In the example below, both programs play out the appropriate ports.

```
1,10:00:00,P1,T1
2,10:00:00,P2,T2
```

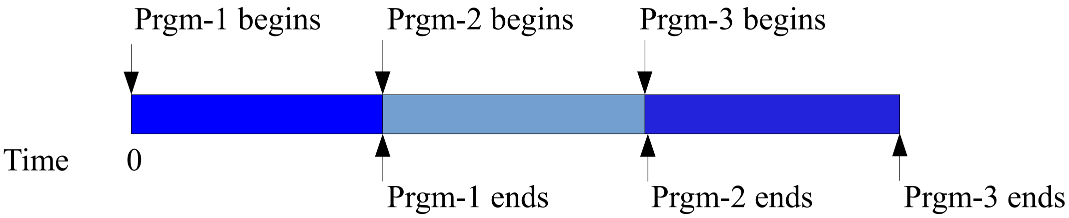
The same program cannot be played out two different audio targets with two separate scheduled events while the first program plays regardless of whether the programs were started at the same time or not. The example below would not play accurately and produce unpredictable results.

```
1,12:00:00,P3,T1
2,12:00:01,P3,T2
```

Multiple Source Programs: Schedules play multiple source programs as a single program. The sources have to be put together in the program entries. Triggers can play one source at a time, replay a source, skip a source or play all the sources as listed in the program listing.

Schedule Example

```
[SOURCES]
1,”FOTF_ODY1_##-##-##_01-03.MP2”
2,”FOTF_ODY1_##-##-##_02-03.MP2”
3,”FOTF_ODY1_##-##-##_03-03.MP2”

[PROGRAMS]
1,”Odyssey Weekend”,S1,S2,S3
```



***Target**: This defines the output port used to play the program. All targets begin with “T” followed by the target designation. Only one analog audio target can be used at a time. The network stream or saved audio file targets can be be used in conjunction with an audio target; however the network stream or saved audio file targets have to be used with the analog audio target.

Each target can play only two programs at the same time and the two programs play on top of each other. If a third program starts playing on the same target while playing two other programs, the first program terminates and the third program plays over the second program.

Available targets:

T1 = Analog port 1 in stereo (mono programs are played out left and right)
T1L = Analog port 1 in mono – left channel only (stereo programs are summed together)
T1R = Analog port 1 in mono – right channel only (stereo programs are summed together)
T2 = Analog port 2 in stereo (mono programs are played out left and right)
T2L = Analog port 2 in mono – left channel only (stereo programs are summed together)
T2R = Analog port 2 in mono – right channel only (stereo programs are summed together)
TMAP# = The port mapped in the Target Map of the receiver and they can be stereo or mono and six TMAP targets exist (TMAP1 – TMAP6).
Tstream:port (T239.0.0.1:5004) = A network IP stream plays on the specified IP address and port
T*filename.mp2* **(T*PROGRAMNAME.MP2*)** = A name of file to be recorded on the AMR-100’s hard drive (it has to have the MP2 extension).

WARNING

Tstream:port and Tfilename.mp2 must have an analog port on the same line separated by a comma to function.

The date wild card (##-##-##) can be put in the T*filename.mp2* target to allow using the day offset (D#) parameter in the sources section. The date in the recorded program would be the date of the recording and not the date of the original program. The recorded program would be entered in the Sources section as a normal file. See “Tfilename Wild Card” in the reference section.

A complete discussion of targets is in the AMR-100 manual and is summarized in the Target Description section.

Examples:

T1 plays the program out analog audio port 1 in stereo.

T2R plays the program out analog audio port 1 through the right channel only. If the program was in stereo, it would be summed to mono.

T239.0.0.1:5004,T2L streams a program on the IP address in the program's original format (stereo or mono) and plays it out T2L (left channel only and summed to a mono output).

T2,TPROGRAM.MP2 plays the program out T2 and records the program in its original stereo or mono format. PROGRAM.MP2 would be the new file on the hard drive.

T1L,T239.0.0.1:5004,TPROGRAM.MP2 plays a program out T1L (summed if in stereo), streamed on the IP address in the target and recorded to PROGRAM.MP2 on the hard drive in its original format (stereo or mono).

Typical Schedule Entries

1,10:00:00,P1,T1

Plays program #1 out audio port #1 in stereo at 10 AM local time.

1,10:00:00 Every Monday-Thursday,P1,T1L

Plays only Monday-Thursday on target T1L (left channel – stereo summed to mono)

1,10:00:00 12/25,P1,T2R,T239.0.0.1:5004

Plays only on Christmas day out the right port of the second audio port (stereo summed to mono) and does and network stream (stereo) on the specified IP address and port.

1,10:00:00 First-Fifth Sunday of January-April,P1,T1

Plays program entry #1 only on Sunday during the months of January through April.

Sample Schedules Section Entries

```
[SCHEDULES]
1,10:00:00 Every Monday-Friday,P1,T1
2,15:30:00 Every Saturday,P2,T1,T239.0.0.1:5004
3,12:05:35,P3,T1
4,13:00:00 June-August-“-MTWTF-”,P3,T2
```

#1 plays program 1 every Monday through Friday in stereo on analog port 1.

#2 plays program 2 on analog port 1 and streams the program on the internal Ethernet network only on Saturday.

#3 plays program 3 every day on analog port 1, but only if the program exists. For example week day programs do not have programs on weekends and would not play. Likewise, weekend programs do not have programs on week days and would not play Monday through Friday.

#4 plays program 3 on analog port 2 in June through August and only Monday through Friday.

Combined Playlist

This is the playlist after adding the schedules section to the playlist. With no time zone designator, everything plays at local time.

```
[SOURCES]
1,"FOTF_FOF5_##-##-##_01-01.MP2",P1-0
2,"FOTF_ODY1_##-##-##_01-03.MP2",D3
3,"FOTF_ODY1_##-##-##_02-03.MP2",D3
4,"FOTF_ODY1_##-##-##_03-03.MP2",D3,P1-0
5,"FOTF_PIN5_##-##-##_01-01.MP2",P1-0

[PROGRAMS]
1,"Focus Daily",S1
2,"Odyssey Weekend – 3 parts",S2,S3,S4
3,"Plugged-In Review – 1 Min",S5

[SCHEDULES]
1,10:00:00 Every Monday–Friday,P1,T1
2,15:30:00 Every Saturday,P2,T1,T239.0.0.1:5004
3,12:05:35,P3,T1
```

TRIGGERS

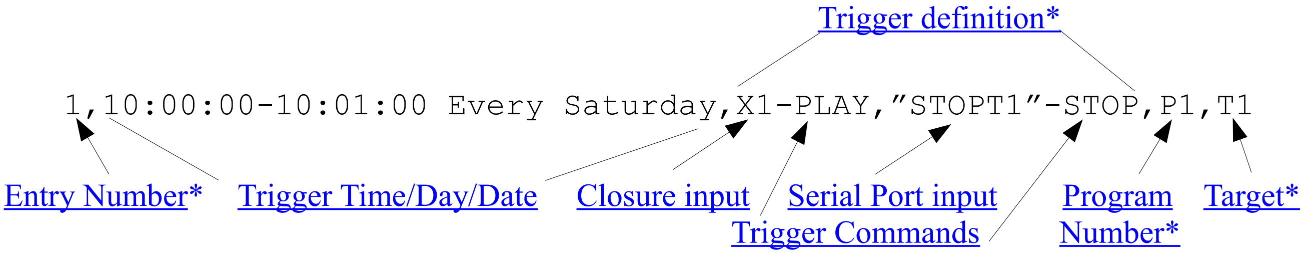
General Description

This prepares the AMR-100 respond to triggers. These play a program out a target on demand with an input closure or a text string through the serial port.

Each entry has four required items separated by commas: the entry number, the trigger definition, the program and target. The trigger definition use Trigger Commands, which are listed in the reference section. A trigger can be limited by date, day and time. Triggers use the same options used in schedules and a more detailed discussion is in the Reference section under Time Field.

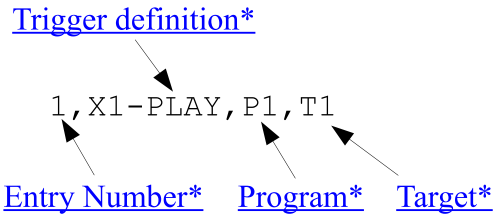
Entry Items

Items marked by an "*" are required, but all options are listed. The following is a list of the possible entries in the triggers section. Each entry is separated by a comma. Programs and targets work identically in schedules and triggers.



```
1,10:00:00-10:01:00 Every Saturday,X1-PLAY,"STOPT1"-STOP,P1,T1
```

Minimum Entry:



```
1,X1-PLAY,P1,T1
```

***Entry #**: This is the unique number for every item. The numbers do not have to be sequential, but they cannot be repeated in the section. The number must be in the range of 1- 999. Unlike the other sections, only 256 entries can be used.

Time/Day/Date: This is an optional parameter. If omitted, the AMR-100 will execute the event any time, day or date it receives the trigger. Using this parameter restricts the time and date when the AMR-100 executes it.

All the Time/Day/Date variables are considered one field so no commas should be used to separate those variables. Ranges in time and date are separated by a "-" and time and date entries are separated by a space. The entire time field (including the time and day/date variables) needs the comma to separate it from the other entries.

Due to the wide variety of options and the similarity with triggers, see the Time Field and Date Range areas in the Reference section for a detailed discussion of the time restrictions. Only a summary for each parameter is listed here.

Time Range: Use a valid time, in 24 hour format, from 00:00:00 to 23:59:59 with a dash ("-") between the times. A time of 13:00:00-13:01:00 means the trigger only functions between 1:00 and 1:01 PM, but once the trigger is activated, the whole program plays.

A start time followed by a "-" means the trigger can will not function before the time, but will execute any time after the start time. Putting "13:00:00-" means the trigger only executes on or after 1:00 pm until 23:59:59 each day. At midnight, the time restriction resets.

Time Range Notes:
- The time is local time in 24 hour format (HH:MM:SS) in local time unless using the "Zone Designators" ("E" – ET or "G" – GMT with no space)
- Single digits have a leading "0" in the field. (8:05 = 08:05:00)
- Midnight is 00:MM:SS
- The Omitting seconds in the time range assumes HH:MM:00

Exceeding Time Range: If the length of the program exceeds the time range, additional triggers in the event will not work after the time range expires.

Example

```
1,16:00:00-16:05:00,"PLAYPGM"-PLAY+,X4-STOP,P1,T1
```

Assuming "P1" has three sources, the first segment plays when the command arrives between 16:00 and 16:05. If the first segment lasts more than five minutes, the AMR-100 ignores the commands to play the subsequent parts, because they come after the time limitation expires.

WARNING
If the sources of a program are longer than the time range, other triggers will not work after the time expires.

Day Range: (the same as used in Schedules) Limits the days of the week a trigger executes by including or excluding days, days of the week or a range of days or specific days. Omitting this means the schedule executes every day of the week.

Day ranges (Sunday-Saturday) use a "-" to separate days.

Day string text ("SMTWTFS" in quotes) limits execution on specific days of the week and must follow a numeric date range (MM/DD/YYYY-MM/DD/YYYY – the year is optional) using a "-" to separate the parameters. Any alphanumeric character (1, 2, a, y, etc.) in the string means the schedule executes and any non-alphanumeric character (!, @, #, $, %, ^, etc.) prevents the schedule from executing. Using the first letter of the days of the week to execute a trigger and a "-" exclude a day of the week makes reading the string easier.
"`-M-W-F-`" executes the schedule on Monday, Wednesday and Friday

WARNING
The Day Description String must be enclosed in quotes and follow a date range.

Date Range: Specifies dates or a range dates to execute the schedule including specific days, months and dates. Use a "-" to separate the ranges without spaces. Mathematical operations add dates, for example, 2/28+1-3/31 executes the day after February 28th (whether it is February 29th or March 1st) to March 31st. Using one date (07/01-) executes every day after July 1 in perpetuity. These can be combined with the "Day Range."

Time and Date Range Examples:

12/25: Will only execute a trigger on Christmas day.

12/24-12/31: Will only executes the trigger from Christmas Eve to New Year's Eve.

01/01/2014-12/31/2015 "-M-W-F-": Will only execute the trigger in 2014 and 2015 on Mondays, Wednesdays and Fridays and quits in 2015. Put the date before the day restriction.

01/01/2014-12/31/2014 Every Fourth Monday-Friday: Will only execute the trigger in 2014 and only on the fourth Monday-Fridays.

6/1-8/31-"S-----S": Will only execute the trigger in June, July and August and only on Saturday and Sunday. Put the date before the day restriction.

Fourth Thursday of November+1-12/31: Will only execute the trigger from the Friday after Thanksgiving to New Year's Eve.

Second Sunday of March to First Sunday of November: Will only execute the trigger during Daylight Saving Time.

01/01/2015- Allows executing the trigger beginning on January 1, 2015 and after that without ending, because no ending date was used. The "-" after date has to be included. This cannot proceed the day string ("SMTWTFS").

Due to the wide variety of options, see the Time Field and Date Range areas in the reference section for a more detailed discussion of the time restrictions.

***Trigger Definition**: This defines the trigger events and commands. The trigger events comes from either a relay input closures (1-4) or a text string sent through the serial port, the AMR-100 HTML Command Interface or the Amb-OS system (satellite or the Internet). Each trigger event needs the type of trigger and a command separated by a "-" between them. When an event happens, the AMR-100 executes the command connected the trigger event. All trigger commands are listed in Trigger Play Commands section in the Reference area.

WARNING

The same trigger can only be used once unless the trigger uses a time/day/date restriction to differentiate each trigger.

Command: *T#-C*

T = Trigger type: (Either a relay input or text string): The relay input checks for closing a relay (X) or opening a relay (O). The text string comes from the serial port.
# = specifies the relay number and not used with text triggers
C = the command to execute (see the Trigger Play Commands section in the Reference area)

Each trigger (relay closure or text string) can only one have one function in the same trigger listing.

1,X1-PLAY,X1-STOP,P1,T1

Using "X1" for two different commands only executes the first trigger in the list.

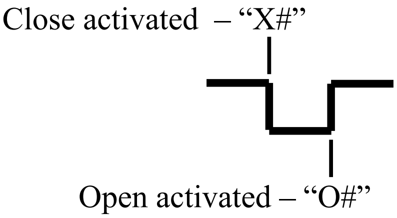
However, different triggers (relay closure or **text string**) can have the same function.

1,X1-PLAY, "PLAYPGM"-PLAY,P1,T1

Using different triggers can work as a backup if an automation system fails.

Closure Input: This defines what relay input closure to monitor and the action to do when the state is true. The state (closed – "X" or open – "O") is followed by an input number (1-4), the "-" and then the command, for example, X1-PLAY.

The triggers respond when the inputs change state. It does not matter how long the closure was in the previous state before changing.



X# – Executes the trigger when the relay input closes. "#" is the number of the input (1-4).
O# – Executes the trigger when the relay input opens. "#" is the number of the input (1-4).

Examples:

X1-play: Plays a program when relay input #1 closes.
O3-play: Plays a program when relay input #3 opens.

Using the same relay to start a program when closing it (X#) and using the open command (O#) to stop the program would play a program when the relay opened.

```
1,X1-PLAY,O1-STOP,P1,T1
```

This plays the program when relay input #1 closes and when the relay opens the program stops. As long as the relay is held closed for the entire length of the program, this works. If relay #1 closes and then released one second later, the program would only play for one second. This could be used to play a program when an alarm condition exists and then stop the program when the alarm condition clears.

Serial Port Input: This defines what a text string, sent through the RS-232 serial port, and its function. The text sent through the serial port does not have quotes, but the text in the trigger event must be in quotes (“gracetoyou”) and is case sensitive. The text trigger can come through the serial port, the AMR-100 HTML Command Interface or sent via the Amb-OS network (satellite or Internet).

> **WARNING**
>
> **When sending a text string through the serial port, *Only* send the text between the quotes and do not include the command.**
> **With “daily”-play, only send *daily* through the serial port.**

The text sent via the serial port, AMR-100 HTML Command Interface or satellite must match text in the trigger exactly including letter case. “Daily” and “daily” do not match would not execute the trigger. Use either “Daily” and “Daily” or “daily” and “daily” executes the trigger.

Text String Notes:

1. The serial string can be up to 256 characters.
2. The case of the string sent must match the string defined in the trigger.
3. Serial command strings cannot have the commands listed in the COMMAND.HTML page on the AMR-100 receiver (see the AMR-100 receiver manual).
4. The “+”, “-” and “,” cannot be used in the text string.

The manufacturer recommends using only alpha numeric characters in the text strings (A-Z, 0-9).

RS-232 Specifications:

The parameters for the AMR-100 serial port are: 9600,n,8,1.
Use a straight through cable, commonly referred to as a “modem” cable.

Trigger Commands: This tells the AMR-100 what do when the trigger is received. The commands are executed by the trigger and are not sent with the serial text. Commands follow the trigger with the “-” preceding the command (“playprgm”-PLAY).

Examples

“PLAYPRGM”-PLAY
“STOPPRGM”-STOP

The “play,” “segue,” “overlay” and “stop” commands can have “all,” “+” or “-” after the command. These function with multiple source programs to play all the sources sequentially (“all”) or one at a time and cue either the next source (“+”) or cues the previous source (“-”).

See Reference section under Trigger Play Commands for detailed instructions.

> **WARNING**
>
> **If a trigger starts a program and the trigger executes before the program ends, the trigger command terminates the program and restarts the same program.**

Three basic play commands exist:

Play: Play the program (multiple part programs variations: PLAYALL, PLAY+ and PLAY-).

Segue: Fade between two programs (multiple part programs variations: SEGUEALL, SEGUE+ and SEGUE-).

Overlay#: Fade one program and play a second program at a number of seconds (#) over the faded portion of the first program (multiple part programs variations: OVERLAYALL, OVERLAY#+ and OVERLAY#-).

Three basic control commands exist:

Stop: Stops playing the program that was started with the same trigger (multiple part programs variations: stop+ and stop-).

Inc: Increments the count of a multiple part program to the next source in the program.

Dec: Decrements the count of a multiple part program to the previous source in the program.

Examples:

"BTTBDaily"-play: When *BTTBDaily* is sent, the program plays.

"LWFDaily"-play+: When *LWFDaily* is sent, the cued source plays and then cues the next source in in the program.

X3-inc: When input closure #3 closes, the source in the program increments to the next source. If source 1 was cued, source 2 cues, but source 1 would not play.

Program Number**: This is the number of the program from the programs section that plays when the trigger arrives. Only one program can used per trigger. "P1" means the program listed as entry #1 in the Programs section. Using a source entry number (S1, S2 or S35) will ***not work. Multiple part programs have to be put together from the sources in the program entries.

> **WARNING**
>
> **Do not Use a source entry number (S1) in the trigger entry.**

Using the same trigger on two entries plays two different programs with the same trigger. Using the same target plays the two programs over each other. The following example plays program 1 and 2 on Target 1 (T1) and the programs play on top of each other.

```
1,X1-PLAY,P1,T1
2,X1-PLAY,P2,T1
```

The same program can be played out two different audio targets with two separate trigger events.

```
3,X1-PLAY,P3,T1
4,X1-PLAY,P3,T2
```

The same trigger can play two different programs out two different ports.

```
1,X1-PLAY,P1,T1
2,X1-PLAY,P2,T2
```

***Target**: This defines the output port used to play the program. All targets begin with "T" followed by the target designation. Only one audio audio target can be used at a time, but the network stream or saved audio file targets can be in the same trigger separated by a comma. The network stream or saved audio file targets are not stand alone targets. The have to have an audio target in the trigger.

Each target can play only two programs at the same time. If a third program starts playing on the same target while two other programs play, the first program terminates and the third program plays over the second program.

A discussion of targets is in the AMR-100 manual and is reproduced in Target Description section. All targets begin with "T" immediately followed by the target designation.

Available targets:

T1 = Analog port 1 in stereo (mono programs are played out left and right)
T1L = Analog port 1 in mono – left channel only (stereo programs are summed together)
T1R = Analog port 1 in mono – right channel only (stereo programs are summed together)
T2 = Analog port 2 in stereo (mono programs are played out left and right)
T2L = Analog port 2 in mono – left channel only (stereo programs are summed together)
T2R = Analog port 2 in mono – right channel only (stereo programs are summed together)
TMAP# = The port mapped in the Target Map of the receiver is one of the physical targets and can be stereo or mono. Six TMAP targets exist (TMAP1 – TMAP6)
Tstream:port (T239.0.0.1:5004) = A network IP stream plays on the specified IP address:port and a physical audio port
T*filename*.mp2 (T*PROGRAMNAME.MP2*) = A name of file to be recorded on the AMR-100's hard drive (needs the MP2 extension) and a physical audio port.

The date wild card (##-##-##) can be put in the T*filename.mp2* target to allow using the day offset (D#) parameter in the sources section. The date in the recorded program would be the date of the recording and not the date of the original program. The recorded program would be entered in the Sources section as a normal file. See "Tfilename Wild Card" in the reference section.

WARNING
Tstream:port and Tfilename.mp2 must have an analog port on the same line separated by a comma.

A complete discussion of targets is in the AMR-100 manual and is summarized in the Target Description section.

Examples:

T1 plays the program out analog audio port 1 in stereo.
T239.0.0.1:5004,T2L streams a program on the IP address in the program's original format (stereo or mono) and plays it out T2L (left channel only and summed to a mono output).
T2,TPROGRAM.MP2 plays the program out T2 and records the program in its original stereo or mono format. PROGRAM.MP2 would be the new file on the hard drive.
T1L,T239.0.0.1:5004,TPROGRAM.MP2 plays a program out T1L (summed if in stereo), streamed on the IP address:port in the target and recorded to PROGRAM.MP2 on the hard drive in the original program's format (stereo or mono).
T1R,TPROGRAM_##-##-##.MP2 plays a program out T1R (summed if in stereo) and records the original program in its original stereo or mono format. If the date is 8/13/16, the program recorded on the AMR-100 would be: PROGRAM_08-13-16.MP2 regardless of the air date of program that was played to record the new program.

Typical Entry

1,X1-play,X4-stop,P2,T1

When input closure #1 closes, Program 2 plays. When input closure #4 closes P2 stops. The audio comes out the first audio port in stereo.

2,13:00:30-13:05,O1-play+,X4-stop,P3,T1

All events in the trigger only work between 1:00:30 PM and 1:05:00 PM. When input closure #1 opens the next source in Program 3 plays. Input closure #4 stops P3 and increments to the next source. The audio comes out the first audio port in stereo. If the sources in P2 are longer than five minutes, the remaining closures on input closure O1 or X4 will not work.

1,10:00-10:30 every Saturday,“OdywAll”-playall,X1-play+,“StopOdywAll”-stop,X4-stop,P2,T1

All events in the trigger only work between 10:00:00 and 10:30:00 AM when the AMR-100 receives the serial string “OdywAll” all the sources in program 2 plays. When input closure #1 closes the first source in Program 2 plays. Input closure #4 stops P2. The audio comes out the first audio port.

Sample Triggers Section Entries

```
[TRIGGERS]
1,EVERY SATURDAY,”ODYWALL”-PLAYALL,”STOPODYWALL”-STOP,P2,T1,TODYW.MP2
2,12:59:00-13:35:00,”ODYWSEG”-PLAY+,”STOPODYWSEG”-STOP+,P2,T1
3,X1-DEC,X2-PLAY+,X3-INC,X4-STOP,P2,T1
4,11:00:00-13:00:00 1/1-12/31-”-MTWTF-”,X1-PLAY,P5,T1
```

The triggers above play the Odyssey Weekend program.

#1 On Saturday only, when the AMR-100 receives “ODYWALL” through the serial port the AMR-100 plays all segments of the program without stopping in sequential order. The text has to be sent in all uppercase just as it is in the entry. Sending the next element in the trigger (“STOPODYALL”) stops the program. The trigger also makes a recording with the name “ODYW.MP2” on the AMR-100 hard drive. Without having a stop command in the trigger, the stop command has to be issued in the AMR-100 HTML Command Interface (see the AMR-100 manual).

#2 All events in the trigger execute between 12:59 and 13:35. Outside the window the triggers would be ignored. When the AMR-100 receives “ODYWSEG” through the serial port, the AMR-100 plays one segment of the Odyssey program and then stops. The next time the serial command comes the second segment plays and then the final segment plays after receiving the command the third time. “STOPODYWSEG” stops playback and increments two sources, because of the “stop+” command.

#3 This works like a rewind (X1-dec), play (X2-play+), fast forward (X3-inc) and stop (X4-stop). Closing #1 reduces the count for a multiple part program by one. Closing #2 plays the part that was cued to play. Closing #3 advances the count to the next one. Closing #4 stops the playback and increments to the next source. A more complete discussion of this is in the Trigger Play Commands section.

#4 All events in the trigger only execute between 11:00:00 A.M. And 1:00:00 P.M. every Monday-Friday. Program 5 plays out of port 1 in stereo. The numerical date has to precede the day string (“-MTWTF-”) in order to play properly. Because the trigger has no “stop” command, once the program starts only a stop command issued in the AMR-100 HTML Command interface can stop playback.

Combined Playlist

After taking the triggers section and putting it into the playlist, the final playlist would look like this. The sequential playlist listed in the Trigger Play Commands section shows how to use triggers to play a series of short features in sequential order.

```
[SOURCES]
1,”FOTF_FOF5_##-##-##_01-01.MP2”,P1-0
2,”FOTF_ODY1_##-##-##_01-03.MP2”,D3
3,”FOTF_ODY1_##-##-##_02-03.MP2”,D3
4,”FOTF_ODY1_##-##-##_03-03.MP2”,D3,P1-0
5,”FOTF_PIN5_##-##-##_01-01.MP2”,P1-0

[PROGRAMS]
1,”Focus Daily”,S1
2,”Odyssey Weekend – 3 parts”,S2,S3,S4
3,”Plugged-In Review – 1 Min”,S5

[SCHEDULES]
1,10:00:00 Every Monday–Friday,P1,T1
2,15:30:00 Every Wednesday,P2,T1,T239.0.0.1:5004
3,12:05:35,P3,T1

[TRIGGERS]
1,EVERY SATURDAY ”PLAYODYW”-PLAYALL,”ODYWSTOP”-STOP,P2,T1,TODYW.MP2
2,”PLAYODY5 SEGMENTS”-PLAY+,”ODY STOP SEG”-STOP+,P2,T1
3,X1-DEC,X2-PLAY+,X3-INC,X4-STOP,P2,T1
4,11:00:00-13:00:00 1/1-12/31-”-MTWTF-”,X1-PLAY,P3,T1
```

Additional Sections

Using additional sections in the playlist can add explanations and comments. The sections can be at the beginning of the playlist or inserted anywhere and the they must be under a section heading.

```
[SOURCES]
1,”FOTF_FOF5_##-##-##_01-01.MP2”,P1-0
2,”FOTF_ODY1_##-##-##_01-03.MP2”,D3
3,”FOTF_ODY1_##-##-##_02-03.MP2”,D3
4,”FOTF_ODY1_##-##-##_03-03.MP2”,D3,P1-0
5,”FOTF_PIN5_##-##-##_01-01.MP2”,P1-0

[PROGRAMS]
1,”Focus Daily”,S1
2,”Odyssey Weekend - 3 parts”,S2,S3,S4
3,”Plugged-In Review - 1 Min”,S5

[PGMCOMMENTS]
Program 1 - Focus Daily
Program 2 - Odyssey Weekend
Program 3 - Plugged-In Media Review

[SCHEDULES]
1,10:00:00 Every Monday-Friday,P1,T1
2,15:30:00 Every Wednesday,P2,T1,T239.0.0.1:5004
3,12:05:35,P3,T1

[SCHEDCOMMENTS]
Focus daily plays at 10A M-F
Odyssey records every Wednesday at 3:30P
Plugged-In plays at 12:05:35

[TRIGGERS]
1,EVERY SATURDAY ”PLAYODYW”-PLAYALL,”ODYWSTOP”-STOP,P2,T1,TODYW.MP2
2,”PLAYODY5 SEGMENTS”-PLAY+,”ODY STOP SEG”-STOP+,P2,T1
3,X1-DEC,X2-PLAY+,X3-DEC,X4-STOP,P2,T1
4,11:00:00-13:00:00 1/1-12/31-”-MTWTF-”,X1-PLAY,P5,T1

[TRIGCOMMENTS]
#1 - “PLAYODYW” plays Odyssey Weekend - all three parts
#2 - “PLAYODY5 SEGMENTS” plays each segment of odyssey one at a
     timezone
#3 - Relay 1 replays a segment, Relay 2 plays, Relay 3 skips a
     segments
     Relay 4 stops playback of Odyssey Weekend
#4 - Relay 1 plays Plugged-In between 11A and 1P all year, M-F
```

Incorrect Comment Entry

The following would not be allowed and cause the playlist to not run.

```
[PROGRAMS]
   1,”Focus Daily”,S1
   Program 1 is Focus daily ←——— (Illegally inserted comment)
   2,”Odyssey Weekend - 3 parts”,S2,S3,S4
   3,”Plugged-In - 2 Min”,S5
```

Reference

Audio Levels

AMB-OS specifies that files transmitted to the AMR-100 should be normalized at -6 dBFS or approximately +12 dB. This allows cross fading programs at full volume without clipping.

File naming convention

MMMM_PPP#_MM-DD-YY_PN-TP.MP2
MMMM = Ministry Name
PPP# = Program Name ("#" = the number of days in the week it airs)
MM-DD-YY = Program air date
PN-TP = part number (PN) of total parts (TP)

The number in the program name (PPP#) indicates the number of times the program airs in a week.
5 = 5 times a week – typically M-F. The date matches a weekday of the month.
1 = 1 time a week – typically a weekend. The date usually matches either Saturday or Sunday depending on the ministry preference.

The parts are described by the part number (PN) of the program and the total number of parts (TP). 01-01 means the program has one part. 02-03 means the file is the second part of a three part program.

Examples of file names:

FOTF_FOF5_04-07-16_01-01.MP2
FOTF = Focus on the Family
FOF5 = Focus on the Family daily program (5 = weekday program)
04-07-16 = Program's air date is April 7, 2016
01-01 = 1 part program, this is part 1 of 1 part

APRT_LTS1_05-07-16_01-04.MP2
APRT = American Policy Roundtable
LTS1 = Public Square Weekend (1 = once a week or weekend)
05-07-16 = Program's air date is May 7, 2016
01-04 = 4 part program, this is part 1 of 4 parts

The list of programs, names and ministries can be found at http://www.amb-os.com/programs.

Day Offset

The day offset for the playlists in the AMR-100 and for file transfers in the Amb-OS User Interface differ due to the hardware requirements of the AMR-100 receiver.

Day Offset for playlists

The day offset references the desired air date so the offset adds (prefeed) or subtracts (late) to get back to the original air date of the program. To play a program early, add the offset to the desired playback date to get the original program date. To play a program after the original air date, subtract the offset from the desired playback date to get the original air date.

If the original air date of the file is 06-07-16
Use 1 or +1 to add to the desired playback date of 06-06-16 to match the program date of 06-07-16.
Use 0 to play the program on its normal date of 06-07-16.
Use -1 to subtract from the desired air date of 06-08-16 to match the program date of 06-07-16.

Day Offset for the Amb-OS User Interface

The day offset references the original air date so the offset subtracts (transfer early) or adds (transfer late) to get back to the original air date of the program.

If the air date of the file is 06-07-16
Use -1 to subtract from the program date to transfer the program on 06-06-16
Use 0 to transfer the program on the program date of 06-07-16
Use 1 to add to the program date to transfer the program on 06-08-16

Relay Maps

Relay mapping allows one command to activate a different relay for different AMR-100 receivers. When networks use trigger events for live programs the network cannot know how each station uses the relays. Using a map name to map relays and the action of the relay allows the network to send one command for all stations. Relay mapping allows consistent names for a specific port and allow stations to used different relays. For example, a ministry sends P1LE indicated the program material has ended. To use relay #2 for that, map P1LE to relay #2. Stations normally just use the relay directly, but a station can use the relay maps. The following table describes the default mapped relays.

Relay names and Default assignments:

Descriptions	Name	Relay #	State – Off, Pulse, On (default listed)
Program Start, Port 1 Left:	P1LS	None	Off
Program End, Port 1 Left:	P1LE	1	Pulse
Break Start, Port 1 Left:	B1LS	None	OFF
Break End, Port 1 Left:	B1LE	2	Pulse
Program Start, Port 2 Left:	P2LS	None	Off
Program End, Port 2 Left:	P2LE	3	Pulse
Break Start, Port 2 Left:	B2LS	None	Off
Break End, Port 2 Left:	B2LE	4	Pulse
Program Start, Port 1 Right:	P1RS	None	Off
Program End, Port 1 Right:	P1RE	None	Off
Break Start, Port 1 Right:	B1RS	None	Off
Break End, Port 1 Right:	B1RE	None	Off
Program Start, Port 2 Right:	P2RS	None	Off
Program End, Port 2 Right:	P2RE	None	Off
Break Start, Port 2 Right:	B2RS	None	Off
Break End, Port 2 Right:	B2RE	None	Off

When assigning functions to specific relay closures, the “Left” assignment should be used for stereo programs. Thus, playing a program out (live or prerecorded) port 1 in stereo or out port 1 in mono on the left channel, use the “Left” assignment. When playing a mono program out the right channel of a port, use the “Right” assignments.

The previous state of the relay determines what happens when a command is sent.

1. OFF: If the relay was open, the relay stays open, but if it was closed, the relay opens.
2. ON: If the relay was closed, it stays closed, but if it was open, the relay opens. The relay stays closed until sending the open command.
3. PULSE: The relay closes for one second and then opens. If the relay was closed, it opens one second after receiving the command.

The relay mapping is done on the front panel of the AMR-100 (Please see the AMR-100 Instruction Manual to set these maps.)

Serial Port

Cable

The serial port on the AMR-100 is a DTE device and requires a straight through cable commonly called a modem cable. The AMR-100 instruction manual has wiring diagrams.

Parameters

9600,n,8,1

Text Limitations

1. The serial string can be up to 256 characters.
2. The case of the sent string must match the string defined in the trigger. Using "FocusDaily" as the trigger, but sending "Focusdaily" through the serial port will not activate the trigger, because "daily" does not match "Daily" in the string.
3. Serial command strings cannot have the commands listed in the COMMAND.HTML page on the AMR-100 receiver (see the AMR-100 receiver manual).
4. Reserved characters: +, - and the comma.

The manufacturer recommends only using alpha numeric characters in the text strings.

Target Description

The audio outputs are called Targets and there are only three basic targets on the receiver.

1. The analog/digital audio outputs – Analog XLR and the matching digital XLR-AES/EBU, BNC-SPDIF, Optical-SPDIF for each port
2. An Ethernet stream on the local network – needs to be used the analog output
3. A file recording – needs to be used the analog output

Available targets:

T1 = Analog port 1 in stereo (mono programs are played out left and right)
T1L = Analog port 1 in mono – left channel only (stereo programs are summed together)
T1R = Analog port 1 in mono – right channel only (stereo programs are summed together)
T2 = Analog port 2 in stereo (mono programs are played out left and right)
T2L = Analog port 2 in mono – left channel only (stereo programs are summed together)
T2R = Analog port 2 in mono – right channel only (stereo programs are summed together)
TMAP# = The port mapped in the Target Map of the receiver which use the physical targets and can be stereo or mono. Six TMAP targets exist (TMAP1 – TMAP6)
Tstream:port (T239.0.0.1:5004) = A network IP stream plays on the specified IP address:port and a physical audio port
T*filename*.mp2 (T*PROGRAMNAME.MP2*) = A name of file to be recorded on the AMR-100's hard drive (needs the MP2 extension) and a physical audio port.

> **WARNING**
>
> **Tstream:port and Tfilename.mp2 must have an analog audio target on the same line separated by a comma.**

Audio Output Targets

Analog Outputs

Targets 1 and 2 are T1 and T2 and include the digital outputs. These can be addressed as separate left and right ports: T1L, T1R, T2L and T2R. Target maps, like relay maps, map a name to a target (see the AMR-100 Installation manual).

Programs can be played on the audio output targets in stereo, mono, or in a combination. The two stereo analog targets can be used as two stereo, as four individual mono outputs, or one stereo and two mono outputs. This list provides the possible combinations.

1. T1 and T2 used as stereo outputs.
2. T1 as a stereo output and T2 as two mono output ports (T2L and T2R).
3. T1 as two mono outputs (T1L and T1R) and T2 as a stereo output.
4. T1 as two mono outputs (T1L and T1R) and T2 as two mono outputs (T2L and T2R).

A stereo program sent mono has the left and right summed into a mono feed. Thus two stereo programs can be sent out the left and right outputs of an analog target. The first stereo program gets sent out the left channel on T1L as a summed mono program and the other stereo program gets sent out T1R as the other summed mono program.

Digital Outputs

Each audio target has three digital outputs – L/R-AES/EBU, BNC-SPDIF, Optical-SPDIF. These digital ports mirror the analog targets and cannot be addressed separately from the analog ports. Whatever plays on T1 also plays on the digital outputs (AES-EBU, SPDIF and Optical) of T1. All of the outputs on a target (digital and analog) are always the same.

Stereo programs would have the left channel on the left and the right channel on the right just like a normal stereo channel.

Two different summed stereo programs played out a target on the left and the right are played out the digital ports the same way. The two different programs play out the left and the right.

Example

Program 1: *Adventures in Odyssey* sent out T1L and is summed to mono
Program 2: *Grace to You* sent out T1R and is summed to mono

The digital outputs of T1 has *Adventures in Odyssey* on the left channel and *Grace to You* on the right channel.

If the AES-EBU go into the board as stereo, both channels would go to air with the left channel airing *Adventures in Odyssey* and the right channel airing *Grace to You*.

Ethernet Stream

(T224.0.0.1:5004) that can be decoded by another computer or by an appliance dedicated to decoding streams.

WARNING

Tstream:port must have an analog audio target on the same line separated by a comma.

Example: To stream a program on 224.0.0.1:5004 use T224.0.0.1:5004,T1

Streams always use the same format as the original program. The audio on the mono analog targets is summed, but the stream is in stereo. Sending a stereo program out a mono analog target does not change the IP stream. A stereo program is streamed in stereo and a mono program in mono. By using the left and right analog targets, four stereo streams can be done. Use the following:

1. T224.0.0.1:5004,T1L
2. T224.0.0.2:5004,T1R
3. T224.0.0.3:5004,T2L
4. T224.0.0.4:5004,T2R

Streams can be combined with recordings.

T224.0.0.1:5004,TfileName.MP2,TL

The streams are IP encoded MP2 files and need a program suitable to receiving it. As of the writing of this manual, Windows Media Player® will not play the stream. VLC®, a free program, will play the stream and is available at www.videolan.org.

File Recording

(Trecordedprogram.MP2) allows a receiver to record a program. “T” refers to it being a target, “recordedprogram.MP2” is the file with the MP2 extension. File names can incorporate the date wild card (##-##-##) in the name.

WARNING

Tfilename.mp2 must have an analog audio target on the same line separated by a comma.

Example: To record a program use T*PROGRAM.MP2*,T1

Recordings always use the same format as the original program. A stereo program is recorded in stereo and a mono program in mono. Sending a stereo program out a mono analog target does not change the recorded program format. By using the left and right analog targets, four recordings can be done. Use the following:

1. TfileName01.MP2,T1L
2. TfileName02.MP2,T1R
3. TfileName03.MP2,T2L
4. TfileName04.MP2,T2R

The audio on the mono analog targets is summed, but the recording is in stereo. Recordings can be combined with streams.

TfileName.MP2,T224.0.0.1:5004,TL

T*filenames* can have the date wild card (##-##-##) in the name to allow using a day offset in the recording. The AMR-100 puts the current date in the file name when the program records regardless of the original program's air date. While this can be used with any program, live programs use it to record the program for a delayed airing.

Target Example: T*GRACE2YOU-##-##-##.MP2*

On 8/16/16, the recorded program would be "GRACE2YOU_08-16-14.MP2" even if the original program was dated for 8/15/16.

Playlist Example

```
[SOURCES]
1,"GTYX_GTY5_##-##-##_01-01.MP2",D+1

[PROGRAMS]
1,"GRACE TO YOU",S1

[SCHEDULES]
1,02:05:00,P1,TGRACE2YOU_##-##-##.MP2,T1L
```

Sources: The "D+1" plays the program a day early.
Programs: Sets the program to source #1
Schedules: Plays the original program at 2:05 AM out T1 and records the program to the AMR-100.
Result: On 8/16/16 GTYX_GTY5_08-17-16_01-10.MP2 plays on T1 in mono (stereo summed) and the program "GRACE2YOU_08-16-14.MP2 is recorded on the AMR-100.

The recorded program is put in a playlist the same way any program gets entered. Using the date wild card in the sources inserts the current date in the source to play the program. The recorded program is put in the sources section.

```
[SOURCES]
1,"GRACE2YOU_##-##-##.MP2"
```

The same date parameters can be used in the source ("D#").

Mapped targets use the same physical outputs, but can be addressed by a single name. The mapped names are listed with their default mapping:

TMAP1 – T1 (stereo)
TMAP2 – T2 (stereo)
TMAP3 – T1L (mono)
TMAP4 – T1R (mono)
TMAP5 – T2L (mono)
TMAP6 – T2R (mono)

Normally, playlists use the hardware port (T1, T2, T1L, etc.), because the connections to the air chain stay the same. Live programs send a command to play use target maps to keep the commands consistent and allow stations to customize the output targets. However, local playlists can use target maps to allow changing configurations without constantly modifying playlists.

For live programs, the program producer notifies the station what target map is used. If a program producer uses TMAP2 for their program and a station wants that program to come out T1, then map TMAP2 to T1. Another station may want a mono feed and map TMAP2 to T2R. When each station receives the program it come out the ports they assigned. See the AMR-100 Manual to map the ports.

Same Program on Multiple Targets

To play the same audio program at the same time on a schedule out two different targets, the audio program needs two sources, programs, schedules and triggers for the same audio program. The following playlist uses the same audio program, but with two sources, programs, schedules and triggers to play the audio program at the same time out multiple targets. Triggers also need two separate entries in the triggers section.

```
[SOURCES]
1,”FOTF_FOF5_##-##-##_01-01.MP2”,F0,B0,R0
2,”FOTF_FOF5_##-##-##_01-01.MP2”,F0,B0,R0

[PROGRAMS]
1,”Focus Daily ST - FM”,S1
2,”Focus Daily MONO - AM”,S2

[SCHEDULES]
1,14:00:00,P1,T1
2,14:00:00,P2,T2L

[TRIGGERS]
1,X1-Play,P1,T1
2,X1-Play,P2,T2L
```

Time Field

This field, used in both the schedules and triggers sections, has a has a time range and a day or date range. The entries are separated by a space, however, the entire time field (including the time and day/date) has a comma at the end of it.

Time Range

A valid time from 00:00:00 to 23:59:59 must be entered and optional end time can be entered for triggers to restrict a trigger from responding outside the time range. The time can be put as a starting and ending time. Schedules and triggers respond to the time range differently.

Schedules: If a time range is used in schedules, the start time acts as the scheduled play time and the AMR-100 ignores the end time.

Example:

```
[SCHEDULES]
1,15:00:00-15:05:00,P1,T1
```

The program plays at 15:00:00 and ignores the end time.

Triggers: The time range is optional and only affects when the trigger will be processed, but the entire program plays. A time of 10:00:00-10:15:00 activates the trigger between those times, but the entire program plays. A trigger (relay input closure or serial string) sent before or after the time range would be ignored.

WARNING

Using a time range in a trigger shorter than the time of the program cause other commands in the trigger not to work if sent after the end of the time range.

Example:

```
[TRIGGERS]
1,15:00:00-15:05:00,X1-PLAY,X4-STOP,P1,T1
```

When input relay #1 closes between 3:00 and 3:05 PM, program P1 plays. However, after 3:05 PM, the stop command ("X4-STOP") will be ignored. To make other commands in the trigger work, use a time range at least as long as the program. For a 25:30 program use:

```
1,15:00:00-15:28:30,X1-PLAY,X4-STOP,P1,T1
```

Using a start time with a "-" after it and no end time activates at the time listed and leaves it active for the rest of the day.

```
1,15:00:00-,X1-PLAY,X4-STOP,P1,T1
```

The trigger will not work from midnight (00:00:00) 14:59:59 and it will work from 3:00 PM to 23:59:59 every day. The trigger timing resets after 23:59:59.

Time Wrap a trigger around the end of day: If a trigger needs to respond before and after midnight, the range cannot start before midnight and end after midnight. For example:

```
[TRIGGERS]
1,23:58:00-00:05:00,X1-PLAY,P1,T1
```

This does not work, because the start time is after the end time. To have a trigger work across midnight, use two entries with the time range to a second before midnight and then duplicate the trigger starting at midnight ending at the desired time.

[TRIGGERS]
1,23:58:00-23:59:59,X1-PLAY,P1,T1
2,00:00:00-00:05:00,X1-PLAY,P1,T1

The first trigger ends one second before midnight and the second starts at midnight and makes it possible to wrap the trigger restraint wrap around midnight.

Zone Designator

E = Eastern Time
G= Greenwich Mean Time (GMT) and ignores Daylight Saving Time

Determines whether to convert the time parameter in schedules and triggers to Eastern Time (E) or GMT (G). Place it immediately after the time with no space, comma or dash. Live programs use this to start an event at the same time for all time zones. A program starting at 5:00 PM ET, plays at 4:00 PM CT, 3:00 PM MT and 2:00 PM PT. Thus, a network with stations in different time zones, all stations use the same playlist and still play the program on time without having a different playlist for each station. Without the zone designator, the schedule uses local time; therefore, local schedules normally do not use this option.

Eastern Time Example

Schedule: 10:00:00E – Plays program at 10:00 AM ET, 9:00 AM CT, 8:00 AM MT and 7:00 AM PT
Trigger: 10:00:00-10:30:00E – Restricts a trigger from 10:00 to 10:30 AM ET, 9:00 to 9:30 AM CT, 8:00 to 8:30 AM MT and 7:00 to 7:30 AM PT.

GMT Example

Schedule: 10:00:00G – Plays the program at 10:00 AM GMT.
Trigger: 10:00:00-10:30:00G – Restricts a trigger from 10:00 to 10:30 AM GMT.
Using this ignores Daylight Saving Time. Thus, a program set to play at 6:00 AM ET during DT plays at 5:00 AM ET ST.
With Daylight Saving Time disabled, it always converts GMT to Standard Time.

Day Range

Sets the specific day or the days of the week to play a program or allow a trigger using the day text string. Omitting this variable means the trigger is active or program that exists plays or every day of the week.

Day Text String: Specific days of the week can be included or excluded from executing a program (schedule or trigger) using the day text string. The day string uses seven characters to represent each day of the week. The first character represents Sunday and the last one represents Saturday. Any alphanumeric character (1, 2, a, y, etc.) in the string means the schedule executes and any non-alphanumeric character (!, @, #, $, %, ^, etc.) prevents the schedule from executing.

Using the first letter of the days of the week to include a day and a “-” to exclude a day of the week makes reading the string easier. The following example executes a schedule on Monday, Wednesday and Friday, but can be confusing.

“#2*a=6@”

Using the first letter of the day does the same thing and clarifies the desired air days.

“-M-W-F-”

Examples

“SMTWTFS” executes the schedule or enables a trigger every day (does the same thing as omitting it)
“-MTWTF-” executes the schedule or enables a trigger entry on weekdays
“-M-W-F-” executes or enables a trigger on Monday, Wednesday and Friday
“------S” executes or enables a trigger just on Saturdays.
“-------” never executes or enables a trigger

WARNING

The Day String must enclosed in quotes and preceded by a numeric Date Range (01/01/2016-12/31/16).

Specific Day Text: The day of the week can also be limited by specifying a specific day of the month (First Tuesday, Fifth Friday, etc.).

NUMBER ***(First Parameter)***	***DAY OF WEEK*** ***(Second Parameter)***	***MONTH OF YEAR*** ***(Third Parameter)***	
All	Sunday	January	July
Each	Monday	February	August
Every	Tuesday	March	September
First	Wednesday	April	October
Second	Thursday	May	November
Third	Friday	June	December
Fourth	Saturday		
Fifth			
compound versions of the above (like First-Third)	compound versions of the above (like Tuesday-Friday)	compound versions of the above (like July-September)	

The commands in this table can be combined in almost any order.

Day ranges can be combined with date ranges to further control playback.

Day Range Examples

Every Sunday	Only plays on Sunday of every week
Every Monday-Friday	Plays every week day
Third Tuesday	Plays only on the third Tuesday of the month
Fourth Thursday of November	Plays on Thanksgiving Day
First-Third Monday-Friday	Only plays during the first three weeks of the month
##/##-##/##-“S-----S”	Only plays on Sunday and Saturday – this must be in quotes and preceded by a numerical date range separated by a “-”
1/1-12/31-“-MTWTF-”	Plays M-F every day and all year

The day text string (“SMTWTFS”) can only be used following the numerical date with a “-” between the date and the day text string (MM/DD-“SMTWTFS”)

Date Range

Sets specific dates or a range of dates using a "-" to separate the dates. The numerical format uses MM/DD/YYYY. The year (YYYY) is optional and when used it must be in the beginning and ending date (06/01/2016-06/30/2016). A leading zero for MM and DD in the date is not needed (01/01/2016 is the same as 1/1/2016).

Additionally, the date range can be used with a specific days of the week by using a day range or the text string of "SMTWTFS" to play programs on specific days of the week. Specific days, months and dates can also be used. Mathematical operations can be done to add dates.

Date Examples:

12/25	Plays the program only on Christmas day.
12/25/2014	Plays the program only on Christmas Day, 2014.
12/24-12/31	Plays the program Christmas Eve to New Year's Eve every year.
2/28+1-3/31	Plays the program from the day after 2/28 even on leap year to the end of March
1/1-12/31	Plays the program all year, every year.

Day and Date Range Combinations Examples

Fourth Thursday of November+1-12/25	Plays a program from the day after Thanksgiving through Christmas Day.
11/1/2016-12/31/2016 Fourth Thursday of November+1-12/25	Plays a program from the day after Thanksgiving until midnight of Christmas Day, but only in 2016.
6/1-10/31-"-M-W-F-"	Plays a file only on Monday, Wednesday and Friday between June 1 and October 31.
01/01/2016-12/31/2017-"-M-W-F-"	Plays only in 2016 and 2017 and only on Mondays, Wednesdays and Fridays.
01/01/2016-12/31/2016 Every Fourth Monday-Friday	Plays only in 2016 and only on the fourth Monday-Fridays.
Every First Monday	Plays a program only on the first Monday of the month.
First-Third Monday-Tuesday of June-August	Plays a file on the first, second and third Monday and Tuesday of the month from June to August.
6/1-8/31-"S-----S"	Plays the program only in the months of June, July and August on Saturday and Sunday only every year.
Second Sunday of March to First Sunday of November	Plays only during Daylight Saving Time.

Trigger Commands

The Trigger Function Table shows the possible commands attached to a trigger and cannot be used with schedules.

Three primary play functions exist.
Play (play a program)
Segue (fade out of and into two programs)
Overlay (fades down a program and plays another program over the first program)

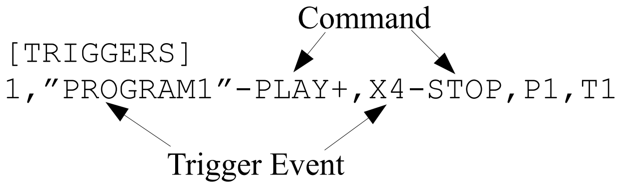
One parameter command exists in conjunction with the Segue command
Seguesec (specifies the number of seconds to fade the first program before the second program plays)

Three primary control commands exist
Stop (stops a program from playing)
Increment (INC) (increments the count in a multiple source program)
Decrement (DEC) (decrements the count in a multiple source program)

Command Descriptions

The commands follow the trigger event with a "-" to separate them.

Example



```
[TRIGGERS]
1,”PROGRAM1”-PLAY+,X4-STOP,P1,T1
```

Multiple source program commands can have a "+" or "-" (increment or decrement) to step through a program list. The "INC" and "DEC" commands change the cued source without playing a source. The only way to reset the count in a multiple source programs is to upload a playlist or boot the AMR-100.

Trigger Command Options ("+" and "-")

All commands can use the "+" and "-" options to increment or decrement the count in a multiple source program as well doing the command. The count changes when the trigger activates and the program starts playing. Any of the play functions and the stop command can have a "+" or "-" option. Issuing the "INC" or "DEC" more than once is additive. For example, using "INC" twice increases the count twice. Likewise, using "DEC" twice reduces the count two places.

Incrementing the count ("+" or "INC"), advances the count to the next source. After finishing the last source in a program, the next trigger resets the count and cues #1 for playback.

Using "play+" with four sources in a program. Other commands have the same effect.

First activation of the trigger	Play source #1 – cue source #2
Second activation of trigger	Play source #2 – cue source #3
Third activation of trigger	Play source #3 – cue source #4
Fourth activation of trigger	Play source #4 – cue source #1
Fifth activation of trigger	Play source #1 – cue source #2
…and so forth	

Decrementing the count ("-" or "DEC") reduces the count to the previous source. At the first source, the trigger sets the count to the last source and cues it for playback.

Using "play-" with four sources in a program. Other commands have the same effect.

First activation of the trigger	Play source #1 – cue source #4
Second activation of trigger	Play source #4 – cue source #3
Third activation of trigger	Play source #3 – cue source #2
Fourth activation of trigger	Play source #2 – cue source #1
Fifth activation of trigger	Play source #1 – cue source #4
…and so forth	

NOTE

Because the "+" and "-" options for the "PLAY," "SEGUE" and "OVERLAY" increment or decrement the count when they execute, the "STOP+" and "STOP-" work on the updated count.

"PLAY+" plays the a source in the program and immediately increments the count to the next source. When the last source plays, the count resets to cue first source.

"PLAY-" behaves the same as "PLAY+", but it decrements the count. It plays a source and decrements the count to cue previous source. When the first source plays, the count reverts to the last source and cues it.

"STOP+" stops a source in the program and increments the count. Because "PLAY+" incremented the count when executed, "STOP+" increments the count again, skips the next source and cues the third source. The next time the trigger executes the third source plays.

"STOP-" stops the current source and decrements the count. Because "PLAY+" incremented the count when executed, "STOP-" decrements the count again back to the same source.

Command*	Result	Command	Result	Next Play Command
"PLAY+"	Increments the count to 2 Plays the source (#1)	"STOP"	Leaves count at 2 Stops #1, Cues #2	Plays #2
		"STOP+"	Increments the count to 3 Stops #1, Cues #3	Plays #3, skips #2
		"STOP-"	Decrements the count to 1 Stops #1, Cues #1	Repeats #1

*The result is the same with any of the play commands – "PLAY," "SEGUE," or "OVERLAY."

"PLAYALL," SEQUEALL," or "OVERLAYALL" always start at the first source and reset the count for any of the "+" or "-" commands.

WARNING

The AMR-100 does not have a system to track the current count.

Important notes:

1. The “INC” and “DEC” can be used in the same trigger with any of the play or stop commands.
2. Using “INC” and “DEC” in addition to the “+” or “-” options can offer more control. A source in a multiple source program can be played more than once before playing the next source.
3. No command exists to reset the count; however, reloading the playlist and rebooting the receiver reset the count, but all counts get reset
4. “PLAYALL,” “SEGUEALL,” or “OVERLAYALL” starts a multiple source program at the first count and effectively reset the count. While these commands reset the count, they also start playing the first source of the program.

WARNING

No command exists to reset the count to the first source. Only reloading the playlist or rebooting the receiver resets the count without playing audio, but all counts are reset. “PLAYALL,” “SEGUEALL,” and “OVERLAYALL” will reset the count on an individual source, but it plays the first source.

Executing “PLAYALL,” “SEGUEALL,” or “OVERAYALL,” to a target without a connection to any equipment would reset count without the audio being heard.

Examples

```
[TRIGGERS]
1,”PLAYSPOT”-PLAY+,”STOPSPOT”-STOP,P1,T1
2,”PLAYSPOT”-PLAY,”STOPSPOT”-STOP,”INCSPOT”-INC,DECSPOT”-DEC,P1,T1
3,”PLAYSPOT”-PLAY+,”STOPSPOT”-STOP,”DECSPOT”-DEC,P1,T1
```

Entry #1: Sending *PLAYSPOT* plays the current source in program P1 and automatically increments the count to the next source. *STOPSPOT* stops the current source in program P1 and the next source is cued for playback. An “INC” or “DEC” can be added to be able control the count.

Entry #2: Duplicates entry #1, but two commands must be sent to increment to the next source. *PLAYSPOT* plays the current source. Sending *PLAYSPOT* again plays the same source again. *INCSPOT* must be sent to cue the next source in the in program.

The disadvantage is that multiple commands must be sent to increment the count. The advantage is that the same spot can be replayed. A source can also be skipped without playing it.

Entry #3: Using “play+*”* automatically increments the count, but it also plays the source. *DECSPOT* can be sent to replay a source after it plays.

Play Functions

PLAY

PLAY: Plays a program. With a multiple part program only the currently cued source in the program plays and the count does not increment. It always plays the same source in the program. Use the “PLAY+” (increment to the next source) or “PLAY-” (decrement to the previous source) to change the source after playing the current source.

PLAYALL: Plays all the sources in a multiple part program in the order listed in the program entry and always starts with the first source.

PLAY+: Plays the current cued source in a multiple part program and advances the count when the program starts and cues the next source in the program after the current source finishes. Check the Trigger Options section for a more detailed discussion on the uses of the “+” option.

PLAY-: Plays the current cued source in a multiple part program and reduces the count when the program starts and cues the previous source in the program after the current source finishes. Check the Trigger Options section for a more detailed discussion on the “-” option.

Examples

```
[TRIGGERS]
1,”PROGRAM1”-PLAY,P1,T1
2,”PROGRAM2”-PLAYALL,P1,T1
3,”PROGRAM3”-PLAY+,P1,T1
5,”PROGRAM4”-PLAY-,P1,T1
```

Sequential playback of programs

A program with a series of sources can have each source played one at a time and advance through the list.

Example

```
[SOURCES]
1,SPOT1.MP2
2,SPOT2.MP2
3,SPOT3.MP2
4,SPOT4.MP2

[PROGRAMS]
1,“SPOT LIST”,S1,S2,S3,S4

[SCHEDULES]
```

(A schedule plays the program as a unit and plays all the spots in order.)

```
[TRIGGERS]
1,“PLAYSPOTS”-PLAY+,“STOPSPOTS”-STOP,P1,T1
```

Steps to Create Sequential Playback

1. Define each spot in the [SOURCES] section.
2. Define the program with the spots in the [PROGRAMS] section.
3. Define the actions in the [TRIGGERS] section for sequential playback.

Results

When the AMR-100 receives the text command *PLAYSPOTS* the first time, it plays source one in the program. The next time *PLAYSPOTS* arrives, the second spot plays. Then the third and the fourth spots play on subsequent triggers. After receiving *PLAYSPOTS* the fourth time, the count resets to the first spot so the fifth time *PLAYSPOTS* arrives, the first spot plays again.

SEGUE AND SEGUESEC

"SEGUE" plays a new program on the same target as the current program. "SEGUE" fades out the currently playing program, starts fading in another program and then stops program one. The second program always begins fading in at 3/4th of the way through the fade out of program one.

The default segue time is one second. The first program fades in 3/4 of a second and the second program starts with 1/4 of second remaining in the fade. While the fade time can change, the ratio always remains the same (3/4 of the fade time and 1/4 of the fade time).

The first program can start by either a schedule or a trigger, but the second program has to start by a trigger. Without a program playing on the target in the segue command, the segue command starts playing the program in the trigger.

WARNING

Both programs (current and new program) have to use the same target.

SEGUE: Fades out the currently playing program and begins playing the new program during the fade of the first program. If a program has multiple sources, only the currently cued source plays.

SEGUEALL: Fades out the currently playing program and begins playing the current source of the new program over the fade of the currently playing program and all the sources of the new program play in order beginning with the first source on the same target.

SEGUE+: Fades out the currently playing program and begins playing the current source of the new program on the same target over the fade of the current program, increments the count to the next source and cues that source for playback. Check the Trigger Options section for a more detailed discussion on the uses of the "+" option.

SEGUE-: Fades out the currently playing program and begins playing the current source of the new program on the same target over the fade of the current program, decrements the count to the previous source and cues that source for playback. Check the Trigger Options section for a more detailed discussion on the uses of the "-" option.

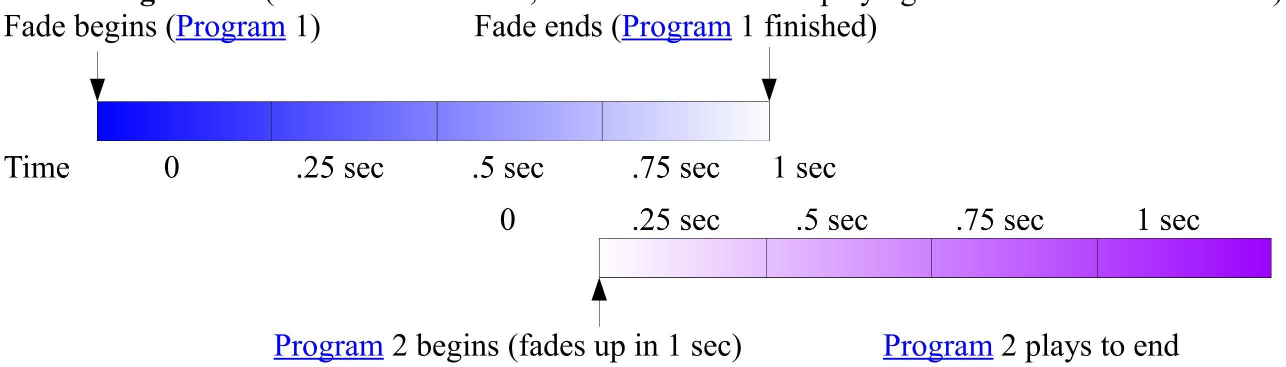
SEGUESEC (S#): Defines the amount of time the "SEGUE" command uses to fade out program one and start playing program two. The seguesec parameter changes the time of the fade, but not the proportions (3/4 and 1/4). If omitted, the "SEGUE" command defaults to a one second fade out and in.

Example

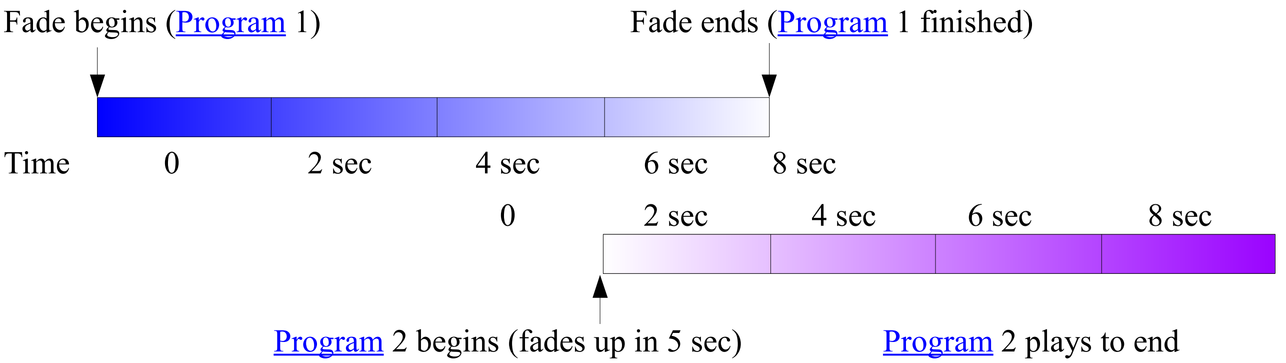
```
1,X1-SEGUE,S4,P2,T1
```

P2 plays over the currently playing program, which fades for four seconds. Three seconds into the fade, P2 fades in for one second.

Default segue time (one second fade out, at 0.75 seconds. start playing #2 and fade in for 1 second)



8-Second segue (S8): An eight second fade time starts fading eight seconds before the end of the program. The new program starts six seconds in the fade (three fourths of the total fade time) and finishes the fade up of the second program eight seconds later or six seconds after the first program ended.



Important notes:

1 - Both programs have to be on the same target.

2 - A program has to playing on the current target for "SEGUE" to work. If not, then "SEGUE" plays the program.

3 - If the "SEGUESEC" parameter is not used, the default segue is one second.

4 - If no program is playing on the target, the triggered segue program begins playing.

5 - The fade starts when the "SEGUE" command activates with the trigger regardless of when program one ends. If program one is 25 minutes long and the trigger for the "SEGUE" starts 20 minutes into program one, program one ends when the fade finishes and the remainder of program one does not play.

6 - If a trigger starts a third program while two programs are playing, When the third program starts the first program terminates and the third program plays over of the second program.

7 - When using triggers to start program one and program two, the triggers have to be in separate entries and start by different triggers and/or have time constraints that do not overlap.

8 - The "SEGUESEC" command has to be in the trigger line with the "SEGUE" command.

Examples

```
[TRIGGERS]
1,"PROGRAM2"-SEGUE,S4,P2,T1
2,"PROGRAM3"-SEGUE,P3,T1
3,"PROGRAM4"-SEGUEALL,P4,T1
4,"PROGRAM5"-SEGUE+,P5,T1
5,"PROGRAM6"-SEGUE-,P6,T1
```

1 - Because of the "S4" parameter, program one has a four second fade and program two starts three seconds in to the fade.
2 - P3 fades in at the end of the currently playing program with the default one second fade.
3 - P4 fades in at the end of the currently playing program with the default one second fade and plays all the sources in a multiple source program.
4 - P5 fades in at the end of the currently playing program with the default one second fade, plays the currently cued source in a multiple source program and immediately increments the count to the next source.
5 - P6 fades in at the end of the currently playing program with the default one second fade, plays the currently cued source in a multiple source program and immediately decrements the count to the previous source.

OVERLAY#

"OVERLAY" plays a second program over the top of a program currently playing on the same target. The "#" is the amount of attenuation (in dB) applied to the first program when playing the second program. Program one automatically returns to its full volume when program two ends. The first program can be started by either a schedule or a trigger, but the second program has to be started by a trigger.

OVERLAY#: Plays a second program over the top of a currently playing program. If a program has multiple sources, only the currently cued source plays.

WARNING
Both programs (current and new program) have to use the same target.

OVERLAYALL#: Plays a second program over the top of the currently playing program. This plays all the sources in a multiple source program.

OVERLAY#+: Plays a second program over the top of the currently playing program. This plays the currently cued source in a multiple source program and cues the next source for playback when the command executes again. Check the Trigger Options section for a more detailed discussion on the uses of the "+" option.

OVERLAY#-: Plays a second program over the top of the currently playing program. This plays the currently cued source in a multiple source program and cues the previous source for playback when the command executes again. Check the Trigger Options section for a more detailed discussion on the uses of the "-" option.

WARNING
Only two programs can play out any one target. After starting program 1, then overlaying program 2 and then starting program 3 before 2 ends, program 1 ends and programs 2 and 3 play at full volume.

Important notes:

1 - Both programs have to use the same target

2 - If the amount of fade is not specified, both programs play at full volume.

3 - A dB cut of 96 (OVERLAY96) effectively silences the output of the first program.

4 - If program two runs longer than the time remaining on program one, program one simply ends normally during the playback of program two.

5 - If another trigger starts a third program while the first two programs are playing, When the third program starts the first program terminates and the third program plays over of the second program.

6 - A trigger has to start the overlay command, but it does not matter how the first program was started.

7 - When using triggers to start program one and program two, the triggers have to be in separate entries and start by different triggers and/or have time constraints that do not overlap.

Overlay Examples

```
[TRIGGERS]
1,"PROGRAM2"-OVERLAY6,P2,T1
2,"PROGRAM3"-OVERLAYALL3,P3,T1
3,"PROGRAM4"-OVERLAY3+,P4,T1
4,"PROGRAM5"-OVERLAY3-,P5,T1
5,"PROGRAM6"-OVERLAY96,P6,T1
```

1 - Drops program 1 by 6 dB and plays program 2

2 - Drops program 1 by 3 dB and plays all parts of program 3

3 - Drops program 1 by 3 dB, plays one source in program 4 and increments the to the next source

4 - Drops program 1 by 3 dB, plays a source in program 5 and decrements to the previous source

5 - Drops program 1 by 96 dB effectively silences program 1 and plays program 6

Playlist Example

```
[SOURCES]
1,"MINS_PGM5_##-##-##_01-01.MP2"
2,"MINS_INS5_##-##-##_01-01.MP2"

[PROGRAMS]
1,"MINISTRY PROGRAM",S1
2,"MINISTRY INSERT",S2
```

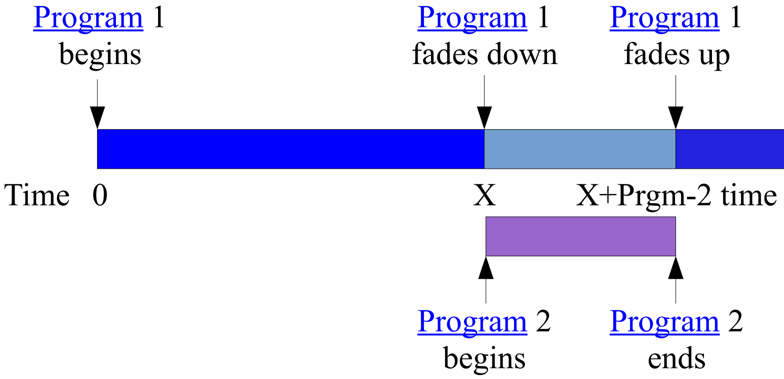
Option 1: Use schedule for program 1 and trigger for overlay

```
[SCHEDULES]
1,11:00:00,P1,T1

[TRIGGERS]
2,"PLAY-INSERT"-OVERLAY6,P2,T1
```

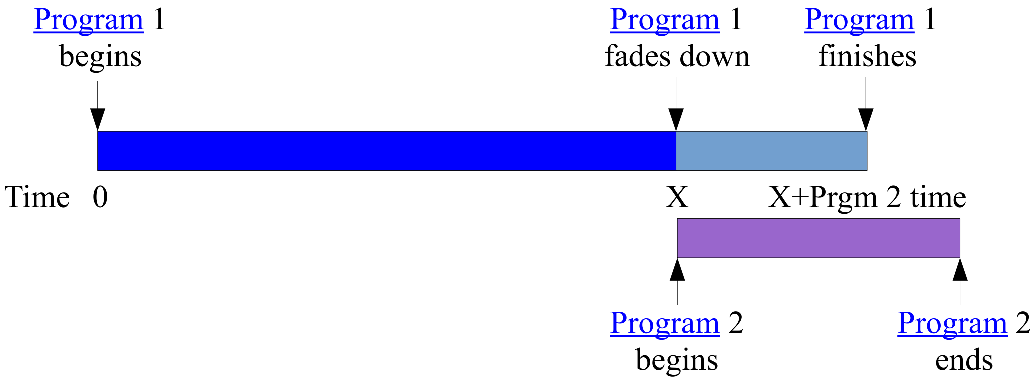
Option 2: Use trigger to play both programs

```
[TRIGGERS]
1,"PLAY-PROGRAM"-PLAY,P1,T1
2,"PLAY-INSERT"-OVERLAY6,P2,T1
```

Overlay Example



If Program 1 finishes before Program 2 finishes, Program 1 ends at its normal run time.



STOP

WARNING

The “stop” command must be in the same trigger line as the one that started playing the program.

STOP: Stops audio playback. If a program has multiple sources, using “STOP” stops the current source and leaves the count at its current position

STOP+: Stops the current source and advances to the next source. This is designed for a multiple source program, because it stops the current source and increments the count. Check the Trigger Options section for a more detailed discussion on the uses of the “+” option especially when used with “PLAY+” or PLAY-.”

STOP-: Stops the current source and decrements the count and cues the previous source. This is designed for a multiple source program, because it stops the current source and decrements the count. Check the Trigger Options section for a more detailed discussion on the uses of the “-” option especially when used with “PLAY+” or “PLAY-.”

NOTE

Because the “PLAY+” and “PLAY-” increment or decrement the count when they trigger a program, The “STOP+” and “STOP-” are additive.

“Stop” Command Notes

1 - The “STOP” command in a trigger cannot stop a program started by a schedule.

2 - Without a “STOP” command in a trigger, a program cannot be stopped without using the AMR-100 HTML Command Interface or rebooting the AMR-100.

3 - If the same stop command string were in two entries, the program started by the either trigger stops playing when sending the stop command string. While it may be desirable at times to have universal stop command, it could stop programs unintentionally. Using a different stop command string in each line can avoid unintentional results.

4 - If a program has one source, “STOP+” and “STOP-” behave the same as “STOP.”

5 - “STOP+” skips a source in a multiple source program if it was used with a “PLAY+” command, because the “PLAY+” incremented the count to the next source when it executed and “STOP+” automatically incremented the count again to next source again.

6 - “STOP-” stops the current source and replays that source if it was used with a “PLAY+” command, because the “PLAY+” incremented the count to the next source when it executed and the “STOP-” decremented the new count to the same source. This stops the current source and replays it.

7 - “STOP+” and “STOP-” behave the same as “STOP” when using the “PLAYALL,” “SEGUEALL” “OVERLAYALL” commands

8 - The HTML interface for AMR-100 can stop all programs using the “allstop” command.

Examples

Correct stop function. (The triggers can be different types – text or closures)

```
[TRIGGERS]
1,”PLAYPROGRAM1”-PLAY,”STOPPROGRAM1”-STOP,P1,T1
2,X1-PLAY,X2-STOP,P1,T1
3,”PLAYPROGRAM1”-PLAY,X2-STOP,P1,T1
4,X1-PLAY,”STOPPROGRAM1”-STOP,P1,T1
```

Incorrect stop function, the triggers are not in the same entry line.

```
[TRIGGERS]
1,”PLAYPROGRAM1”-PLAY,P1,T1
2,”STOPPROGRAM1”-STOP,P1,T1
```

INC & DEC

“INC” and “DEC” change the count in a multiple source program, but performs no action on the source.

Example: After using a command with a “+” in source #1, the count advances, cues source #2 for playback.

Executing the “inc” command: Source #2 is skipped, the count advances and cues source #3 for playback.

Executing the “dec” command: Source #2 is skipped, the count decreases and cues source #1 for playback.

Example

Using a serial input trigger

```
[TRIGGERS]
1,”PLAYPROGRAM1”-PLAY,”INCPROGRAM1”-INC,”DECPROGRAM1”-DEC,P1,T1
```

Using input relay closures

```
[TRIGGERS]
1,X1-PLAY,X2-INC,X3-DEC,P1,T1
```

Using “INC” with four sources in a program and a command with “+” or “-” is not issued between them.

Before any trigger activation	Source #1 cued
First activation of INC command	Source #1 skipped and #2 cued
Second activation of INC command	Source #2 skipped and source #3 cued
Third activation of INC command	Source #3 skipped and source #4 cued
Fourth activation of INC command	Reset count to #1 and source #1 cued
Fifth activation of INC command	Source #1 skipped and source #2 cued
…and so forth	

Using “DEC” with four sources in a program and a command with“+” or “-” is not issued between them.

Before any trigger activation	Source #1 cued
First activation of DEC command	Source #1 skipped and #4 cued
Second activation of DEC command	Source #4 skipped and source #3 cued
Third activation of DEC command	Source #3 skipped and source #2 cued
Fourth activation of DEC command	Source #2 skipped and source #1 cued
Fifth activation of DEC command	Source #1 skipped and source #4 cued
…and so forth	

Trigger Command Table

Command	Action
Play Command	
play	Begin playback of current program. If multiple sources are in the program, it only plays the first source. Using a command with "+," "-," "inc," or "dec" changes the source.
playall	Begin playback of the entire program – all sources sequentially without any intervention. This works for playing a multiple part program back as single program.
play+	Begin playback of current source and cues the next source in the program. To play back all the sources of a program, the trigger has to executed for each source. With four sources, the trigger has to be executed four times to play all the sources.
play-	Begin playback of current source and cues previous source of the program. This is similar to a rewind.
PLAY+ and PLAY- NOTE	
"PLAY+" and "PLAY-" increment (+) or decrement (-) the source count immediately and the "STOP+" and "STOP-" increment (+) or decrement (-) the updated count and not on the source being played.	
Segue Command	
segue	Begin playback of a second program over a program already playing and fade the first program and stop it. The same target must be used for both programs.
segueall	Begin playback of a second program over a program already playing and fade the first program and stop it. If the second program has multiple sources, all of the sources play sequentially. The same target must be used for both programs.
segue+	Begin playback of a second program over a program already playing and fade the first program and stop it. With multiple sources in the second program, each source must be played by executing the trigger, because the play back stops after each source. The first program does not resume playing after each source of the second program ends. The same target must be used for the first and second programs. This will go forward to the next source and cue that for playback when the trigger is executed again. If the AMR-100 receives another trigger before the second program ends, the next source plays and the first program terminates.
segue-	Begin playback of a second program over a program already playing and fade the first program and stop it. With multiple sources in the second program, each source must be played by executing the trigger, because the play back stops after each source. The first program does not resume playing after each source of the second program ends. The same target must be used for the first and second programs. This goes back to the previous source and cues that for playback when the trigger executes again. If the AMR-100 receives another trigger before the second program ends, the next source plays and the first program terminates.
S#	Defines the number of seconds the first program fades before the second program starts. It retains the 3/4 ratio (3/4 of the fade happens and the second program plays over the last 1/4 of the fade).
SEGUE+ and SEGUE- NOTE	
"SEGUE+" and "SEGUE-" increment (+) or decrement (-) the source count immediately and the "STOP+" and "STOP-" increment (+) or decrement (-) the updated count and not on the source being played.	

Command	Action
Overlay Command	
overlay#	Begin playback of a second program over a program already playing. The "#" specifies an optional fade parameter in dB that attenuates the volume of the first program. "Overlay6" fades the first program by 6 dB and then plays the second program. After the second program ends, the original program returns to full volume.
overlayall#	Begin playback of a second program over a program already playing. The "#" specifies an optional fade parameter in dB that attenuates the volume of the first program. "Overlayall6" fades the first program by 6 dB and then plays the second program. After the second program ends, the original program returns to full volume. If the second program contained multiple sources, all the sources of the second program plays and then the first program returns to full volume.
overlay#+	Begin playback of a second program over a program already playing. The "#" specifies an optional fade parameter in dB that attenuates the volume of the first program. "Overlay6+" fades the first program by 6 dB and then plays the second program. After the second program ends, the original program returns to full volume. If the second program contained multiple sources, each source plays one at a time and the first program returns to full volume after each source, but before the trigger executes again. The trigger has to be executed individually for each source of the second program. After each source plays, the next source cues for playback when the trigger executes again. If the AMR-100 receives another trigger before the second program ends, the next source plays over the previous source and the first program terminates.
overlay#-	Begin playback of a second program over a program already playing. The "#" specifies an optional fade parameter in dB that attenuates the volume of the first program. "Overlay6" fades the first program by 6 dB and then plays the second program. After the second program ends, the original program returns to full volume. If the second program contained multiple sources, each source plays one at a time and the first program returns to full volume after each source, but before the trigger executes again. The trigger has to be executed individually for each source of the second program. After each source plays, the previous source cues for playback when the trigger executes again. If the AMR-100 receives another trigger before the second program ends, the next source plays over the previous source and the first program terminates.
OVERLAY+ and OVERLAY- NOTE	
"OVERLAY+" and "OVERLAY-" increment (+) or decrement (-) the source count immediately and the "STOP+" and "STOP-" increment (+) or decrement (-) the updated count and not on the source being played.	

Command	Action
Stop Command	
stop	Stops playback of the currently playing program. When using the "+" or "-" options in a play command ("PLAY," "SEGUE" or "OVERLAY") the count does not change from the effect of the play command ("PLAY," "SEGUE" or "OVERLAY").
stop+	Stops playing the current source and the counts increments to the next source of the program. When using the "+" or "-" options in a play command ("PLAY," "SEGUE" or "OVERLAY") the count incremented ("+") or decremented ("-") when the command executed. "STOP+" increments one source from the updated count and skips a source with the"+" option of the play command and replays the source with the ("-") option of the play command.
stop-	Stops playing the current source and the count decrements to the previous source of the program. When using the "+" or "-" options in a play command ("PLAY," "SEGUE" or "OVERLAY") the count incremented incremented ("+") or decremented ("-") when the command executed. "STOP-" decrements one source from the updated count and replays the current source with the "+" option of the play command and reduces the count by two with the "-"option of the play command.
STOP+ and STOP- NOTE	
"STOP+" and "STOP-" increment (+) or decrement (-) the updated source count from the play command ("PLAY," "SEGUE" or "OVERLAY") using the "+" or "-" option. "STOP+" and "STOP-" increment (+) or decrement (-) the updated count and not on the source being played.	

WARNING

The "stop" command must be in the same trigger line as the one that started playing the program.

Count Commands	
inc	Changes to the count to the next source in a program. If the count is on the last source, the count is moved to the first source. The command performs no action on the audio file.
dec	Changes to the count to the previous source in a program. If the count is on the first source, the count is moved to the last source. The command performs no action on the audio file.

Controlling Source Playback with Triggers

A multiple source program can have several spots that play during a program segment or during drive time and can be played in order, skipped or replayed using triggers by using the "+" or "-" options in commands or the "INC" and "DEC" functions in a trigger. Executing an increment ("INC") or decrement ("DEC") command changes the count, but does not play any audio.

Sequential Playback: Each source can be played one at time and step through the sources in a program list by using the "PLAY+" command. Each time "PLAY+" executes, the current source plays and the AMR-100 advances the count and cues the next source in the list for playback.

Skipping a Source: To skip a source use the "INC" command in the trigger line. The "STOP" command interrupts the currently playing source. "PLAY+" already incremented the count to the next source and cues it for playback. "STOP+" also interrupts the currently playing source and it advances the updated count again skipping the next source in the list and cues the third source for playback.

Replay a Source: To replay a source use the "DEC" command in the trigger line. Using "STOP" interrupts the currently playing source. "PLAY+" already incremented the count to the next source so "STOP-" decrements the count and re-cues the current source for playback.

Example

```
[SOURCES]
1,"FOTF_PIN5_##-##-##_01-01.MP2",F0,B0,R60
2,"FOTF_DFM5_##-##-##_01-01.MP2",F0,B0,R60
3,"AGLX_DLD5_##-##-##_01-01.MP2",F0,B0,R60
4,"BGEA_DMP5_##-##-##_01-01.MP2",F0,B0,R60

[PROGRAMS]
1,"PM Drive Short Features",S1,S2,S3,S4

[SCHEDULES]
```

(Any schedule that plays P1 would play all four spots in the order listed in the program listing.)

```
[TRIGGERS]
1,"SPOTPLAY"-PLAY+,X1-DEC,X2-STOP-,X3-INC,X4-STOP+,P1,T1
```

`[SOURCES]` Defines the short features used in the trigger.
`[PROGRAMS]` Defines the program with all four short features (S1-S4)
`[SCHEDULES]` Would only play P1 as one program and not included in this example
`[TRIGGERS]` Defines the trigger to decrement, play, increment and stop each source and uses all four closures to control playback and a text command to start playback.

"SPOTPLAY" – Play the currently cued source
X1 – Decrement the count to the previous source
X2 – Stops the currently playing source and re-cues the source for playback.
X3 – Increment the count to the next source
X4 – Stops the currently playing source and increments two sources

Result of just sending "SPOTPLAY" (Play+): (normal use and not stopping playback)
First time (Count #1): plays source #1 (FOTF_PIN5) and increments to source #2
Second time (Count #2): plays source #2 (FOTF_DFM5) and increments to source #3
Third time (Count #3): plays source #3 (AGLX_DLD5) and increments to source #4
Fourth time (Count #4) plays source #4 (BGEA_DMP5) and increments to source #1
Fifth time (Count #1): plays source #1 (FOTF_PIN5) and increments to source #2

Running the playlist:

1 – Playlist Start – The count is at S1. At this point, each trigger does the following:

"SPOTPLAY"-PLAY+

Nothing Playing: Plays S1, increments the count and then cues S2.

S1 Playing: Stops S1, increments the count and plays S2.

X1-DEC

Nothing Playing: The count decrements and wraps back to the last source and cues S4.

S1 Playing: S1 continues playing and the count decrements back to S1, because the *SPOTPLAY* trigger incremented the count to S2 when it executed, and "DEC" reduced the count bringing it back to S1.

X2-STOP-

Nothing Playing: Decrements the count to S4, because "-" decrements the count from S1 and sets the count S4, the last source in the list.

S1 Playing: Stops S1 and, because the *SPOTPLAY* trigger incremented the count to S2 when it executed, the "-" decremented the count from S2 to S1.

X3-INC

Nothing Playing: The count increments and cues S2.

S1 Playing: Skips S2 and cues S3 when S1 finishes, because the *SPOTPLAY* trigger incremented the count to S2, "INC" incremented the count to S3. When S1 finishes S3 is cued for playback.

X4-STOP+

Nothing Playing: Increments the count to S2.

S1 Playing: Stops S1, skips S2 and cues S3, because the *SPOTPLAY* trigger incremented the count to S2 when it executed, the "+" increments the count again to S3 and skips S2.

2 – Subsequent Segment – The count is at S2. *SPOTPLAY*-PLAY+ played S1 and it finished playing. Each trigger at this point does the following:

"SPOTPLAY"-PLAY+

Nothing Playing: Plays S2, increments the count and then cues S3.

S2 Playing: Stops S2, increments the count and plays S3.

X1-DEC

Nothing Playing: The count decrements one count and cues S1.

S2 Playing: S2 continues playing and the count decrements back to S2, because the *SPOTPLAY* trigger incremented the count to S3 and "DEC" reduced the count bringing it back to S2.

X2-STOP-

Nothing Playing: Decrements the count to S1, because "-" decrements the count from S2 and sets the count to S1.

S2 Playing: Stops S2 and, because the *SPOTPLAY* trigger incremented the count to S3 when it executed, the "-" decremented the count from S3 to S2.

X3-INC

Nothing Playing: The count increments and cues S3.

S2 Playing: Skips S3 and cues S4 when S2 finishes, because the *SPOTPLAY* trigger incremented the count to S3 when it executed, "INC" incremented the count to S4. When S2 finishes S4 is cued for playback.

X4-STOP+

Nothing Playing: Increments the count to S3.

S2 Playing: Stops S2, skips S3 and cues S4, because the *SPOTPLAY* trigger incremented the count to S3 when it executed, the "+" increments the count again to S4 and skips S3.

3 – Finishing the list – The count is at S4: *SPOTPLAY*-PLAY+ played S3 and it finished playing. Each trigger at this point does the following:

"SPOTPLAY"-PLAY+

Nothing Playing: Plays S4 and the count wraps back to the beginning and cues S1.

S4 Playing: Stops playing S4, increments the count back to the beginning and plays S1.

X1-DEC

Nothing Playing: The count decrements one count and cues S3.

S4 Playing: S4 continues playing and the count decrements back to S4, because the *SPOTPLAY* trigger incremented the count to S1 and "DEC" reduced the count bringing it back to S4.

X2-STOP-

Nothing Playing: Decrements the count to S3, because "-" decrements the count from S4 and sets the count to S3.

S4 Playing: Stops S4 and, because the *SPOTPLAY* trigger incremented the count to S1 when it executed, the "-" decremented the count from S1 to S4.

X3-INC

Nothing Playing: The count increments and wraps back to the beginning and cues S1.

S4 Playing: Skips S1 and cues S2 when S4 finishes, because the *SPOTPLAY* trigger incremented the count to S1, "INC" incremented the count to S2. When S4 finishes S2 is cued for playback.

X4-STOP+

Nothing Playing: Increments the count to S1.

S4 Playing: Stops S4, skips S1 and cues S2, because the *SPOTPLAY* trigger incremented the count to S1 when it executed, the "+" increments the count again to S2 and skips S1.

Input Closure Playlist

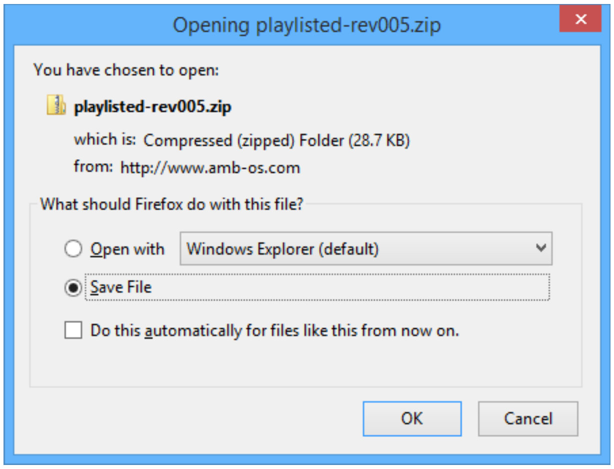
The following playlist incorporates many of the trigger and target features.

```
[SOURCES]
1,”FOTF_FOF5_##-##-##_01-01.MP2”,R1710,P1-0
2,”FOTF_ODY1_##-##-##_01-03.MP2”,R0
3,”FOTF_ODY1_##-##-##_02-03.MP2”,R0
4,”FOTF_ODY1_##-##-##_03-03.MP2”,R0,P1-0
5,“FOTF_PIN5_##-##-##_01-01.MP2”,F0,B0,R60
6,“FOTF_DFM5_##-##-##_01-01.MP2”,F0,B0,R60
7,“AGLX_DLD5_##-##-##_01-01.MP2”,F0,B0,R60
8,“BGEA_DMP5_##-##-##_01-01.MP2”,F0,B0,R60

[PROGRAMS]
1,”Focus Daily”,S1
2,”Odyssey Weekend – 3 parts”,S2,S3,S4
3,”Plugged-In Review – 1 Min”,S5
4,“PM Drive Short Features”,S5,S6,S7,S8

[SCHEDULES]
1,10:00:00 Every Monday–Friday,P1,T1
2,15:30:00 Every Saturday,P2,T1,T239.0.0.1:5004
3,12:05:35,P3,T1

[TRIGGERS]
1,”PLAYODYWWHOLE”-PLAYALL,”ODYSTOP”-STOP,P2,T1,TODYW_##-##-##.MP2
2,”PLAYODYWSEGMENTS”-PLAY+,”ODYSTOPSEG”-STOP,P2,T1
3,X1-DEC,X2-PLAY+,X3-DEC,X4-STOP,P4,T1
4,11:00:00-13:00:00 1/1-12/31-”-MTWTF-”,X1-PLAY+,P4,T1
```

Appendix (Standalone Playlist Editor)

Installing the Program

Download *Standalone Playlist Editor (.zip)* from www.amb-os.com/support.html (bottom of the page).



Opening playlisted-rev005.zip

You have chosen to open:

playlisted-rev005.zip

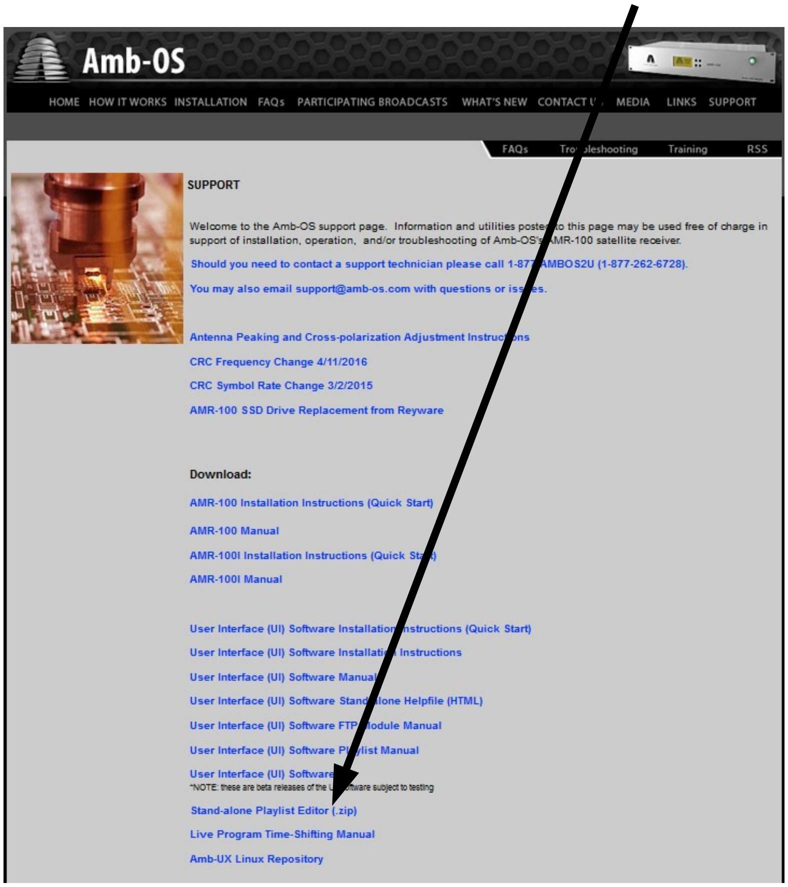
which is: Compressed (zipped) Folder (28.7 KB)
from: http://www.amb-os.com

What should Firefox do with this file?

○ Open with Windows Explorer (default)

● Save File

□ Do this automatically for files like this from now on.



SUPPORT

Welcome to the Amb-OS support page. Information and utilities posted to this page may be used free of charge in support of installation, operation, and/or troubleshooting of Amb-OS's AMR-100 satellite receiver.

Should you need to contact a support technician please call 1-877-AMBOS2U (1-877-262-6728).

You may also email support@amb-os.com with questions or issues.

Antenna Peaking and Cross-polarization Adjustment Instructions

CRC Frequency Change 4/11/2016

CRC Symbol Rate Change 3/2/2015

AMR-100 SSD Drive Replacement from Reyware

Download:

AMR-100 Installation Instructions (Quick Start)

AMR-100 Manual

AMR-100I Installation Instructions (Quick Start)

AMR-100I Manual

User Interface (UI) Software Installation Instructions (Quick Start)

User Interface (UI) Software Installation Instructions

User Interface (UI) Software Manual

User Interface (UI) Software Stand-alone Helpfile (HTML)

User Interface (UI) Software FTP Module Manual

User Interface (UI) Software Playlist Manual

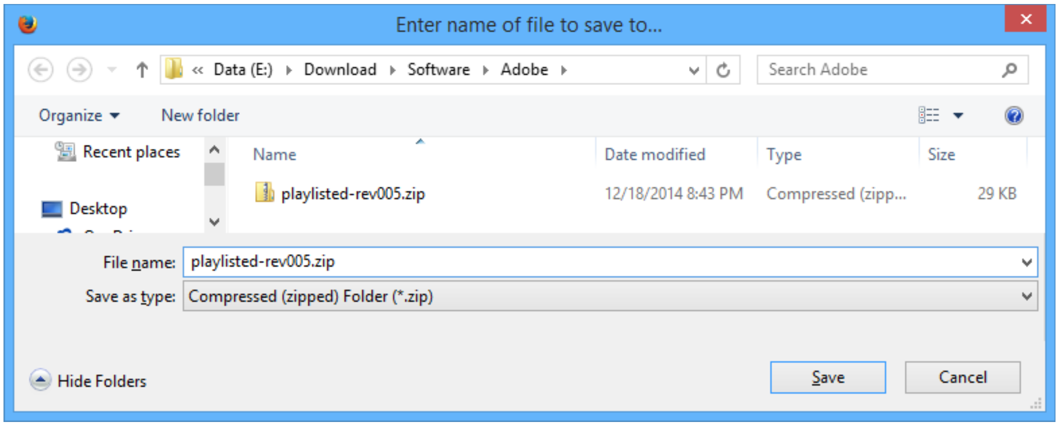
User Interface (UI) Software
*NOTE: these are beta releases of the UI software subject to testing

Stand-alone Playlist Editor (.zip)

Live Program Time-Shifting Manual

Amb-UX Linux Repository

Click on the link, "Standalone Playlist Editor (.zip)" to open the save dialog box to save the file in the desired location. The filename is "playlisted-rev005.zip." Click "OK" to save the file. Any directory will work, but by saving the file to the computer running the Amb-OS User Interface, it aids in making sure the program installs on the same computer. This allows the program to take the settings from the Amb-OS User Interface and automatically configure the editor.



Enter name of file to save to...

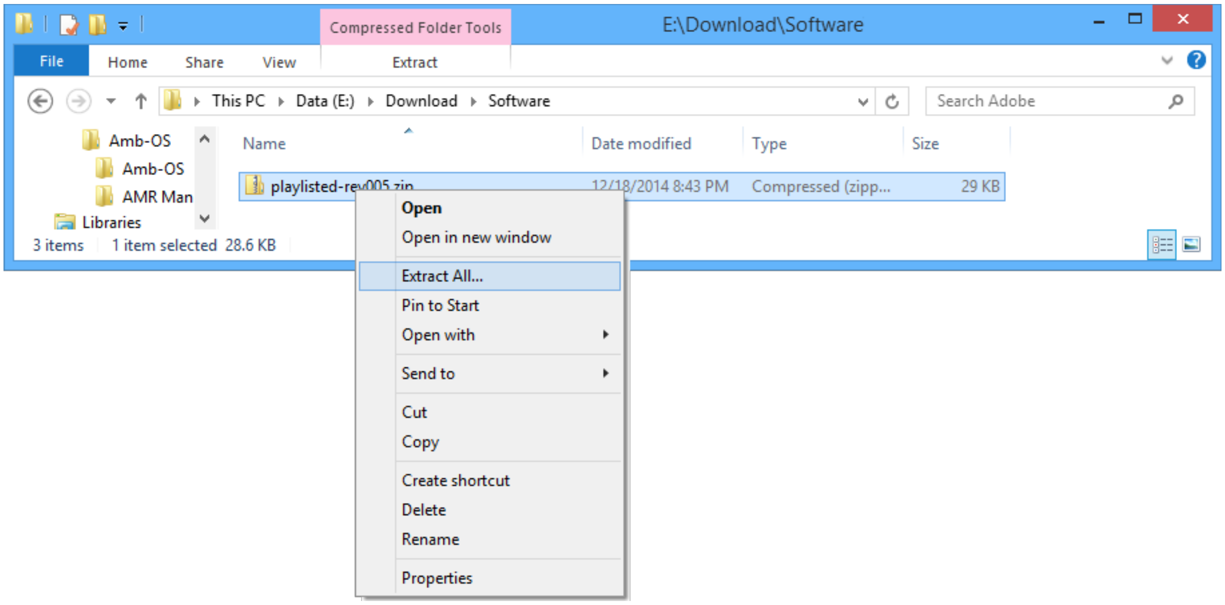
Name	Date modified	Type	Size
playlisted-rev005.zip	12/18/2014 8:43 PM	Compressed (zipp...	29 KB

File name: playlisted-rev005.zip

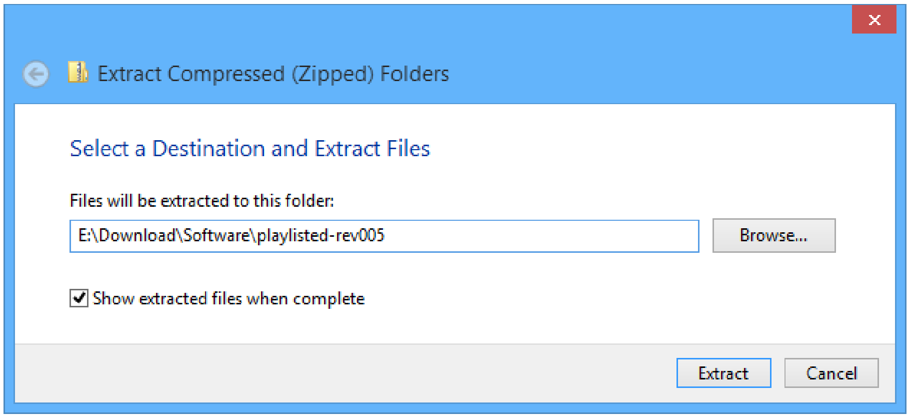
Save as type: Compressed (zipped) Folder (*.zip)

Select the directory to put the file and click "Save."

Extract the “Zip” file and save it. Current versions of Microsoft Windows® will extract files by right clicking on the zip file and select “Extract all...”



The zip file just has “playlisted.exe” in file. Use the default directory by clicking on “Extract” or select a different directory by clicking on “Browse...” Selecting the desktop as the desired location would avoid going to the destination directory to run it. After selecting the directory, click on “Extract” save “playlisted.exe” in the desired directory.


Extract Compressed (Zipped) Folders
Select a Destination and Extract Files
Browse...
Extract
Cancel

Files will be extracted to this folder: E:\Download\Software\playlisted-rev005

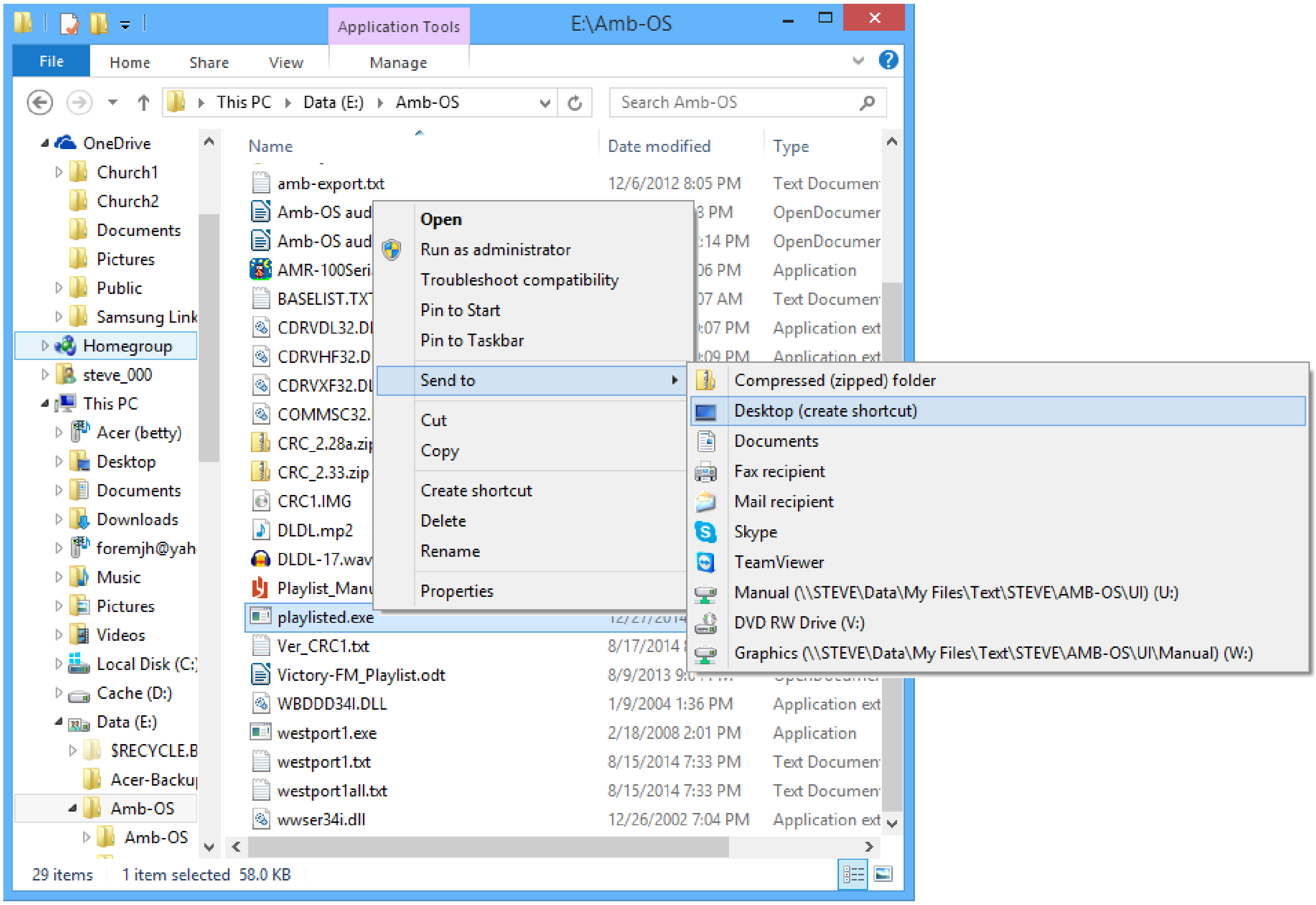
☑ Show extracted files when complete

Go to the directory with “playlisted.exe” and double-click on the program to run.

<u>NOTE</u>

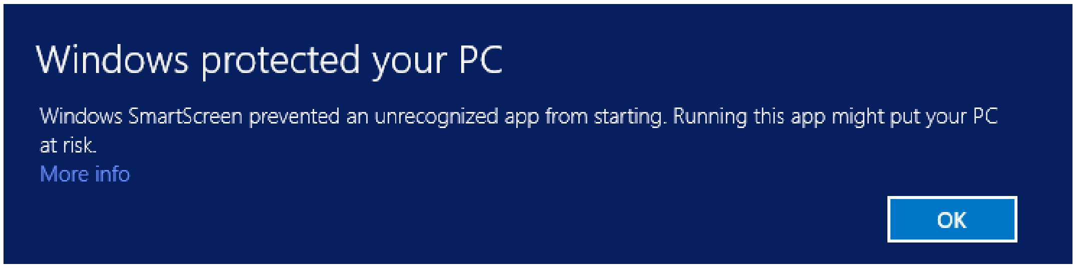
The playlist does not install. Just double click on the program to run it.

Optional: Creating a desktop shortcut to the desktop saves navigating to a directory to run the program if it was not saved to the desktop. Right click on the program in the directory it and the click on “Send to” and then on “Desktop (create shortcut)” to create the shortcut on the desktop.



The shortcut appears as “playlisted.exe – Shortcut” on the desktop.

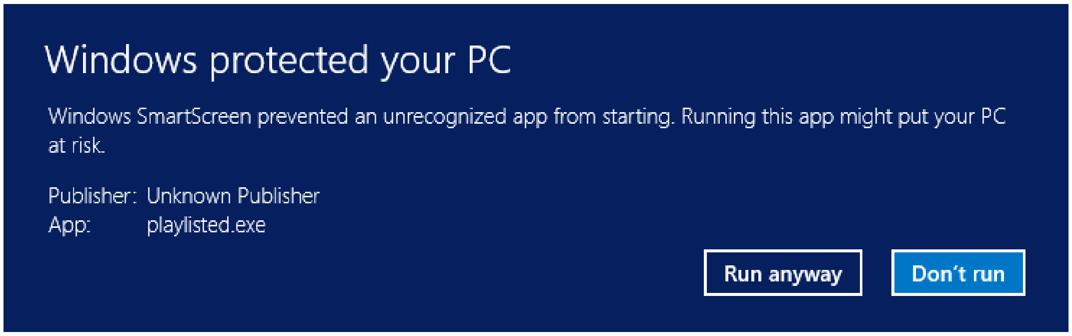
On Windows 8®, the anti-virus software may show the program should not be trusted.



Windows protected your PC

Windows SmartScreen prevented an unrecognized app from starting. Running this app might put your PC at risk.

Click on “More info” and then click on “Run anyway” to open the program. This only happens the first time the program executes.



Windows protected your PC

Windows SmartScreen prevented an unrecognized app from starting. Running this app might put your PC at risk.

Publisher: Unknown Publisher
App: playlisted.exe

Running the Program

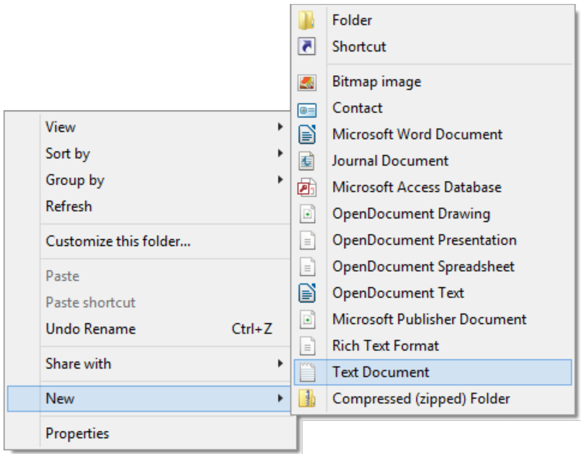
The Playlist Editor has to read a playlist from a file on a computer ("Read from disk") or from the AMR-100 ("Edit Playlist") after configuring the IP address and serial number.

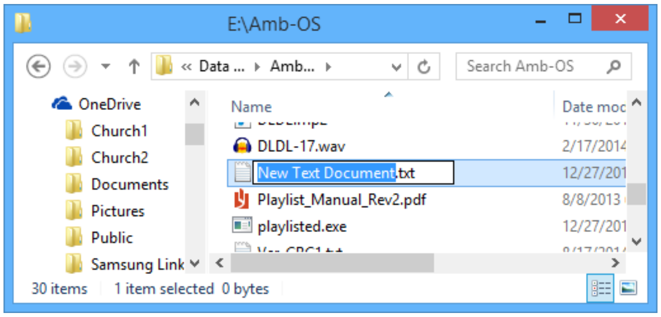
NOTE

A playlist text file has to exist on a computer or a receiver in order to use the Playlist editor.

Create a playlist with one of the following methods:

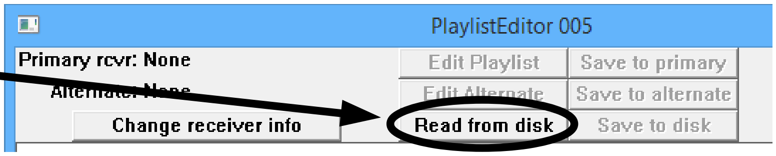
1. Use the Amb-OS User Interface to create and save a playlist to edit.
2. Used Notepad® to open a file and save it as "playlist.txt" and it can be blank
3. Right click in the file area of Windows Explorer® and select "New" and then on "Text Document." It creates a new file named "New Test Document.txt." Name the file "playlist.txt" and press [ENTER] to save it.





Read from disk

With an existing "playlist.txt" file, bring it into the Playlist Editor using the "Read from disk" option.



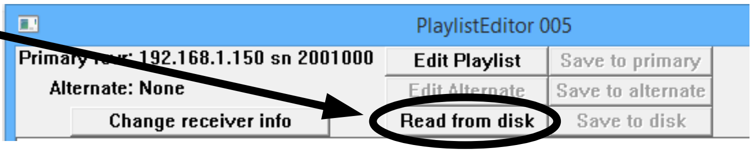
While the playlist can be retrieved from and saved to a computer, the playlist cannot be saved to the AMR-100 until after the AMR-100 information has been configured.

WARNING

The playlist cannot be saved to the AMR-100 without configuring the AMR-100 parameters.

Read from AMR-100 – Edit Playlist

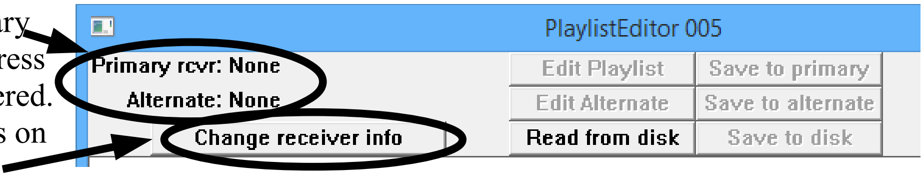
With a valid IP address and serial number configured, the "Edit Playlist" activates. Clicking on that button opens the playlist that exists on the AMR-100.



If the AMR-100 does not have a playlist, the program crashes. Bring in a playlist from the disk and save it to the AMR-100 before using this option.

Configure IP address and Receiver Serial Number

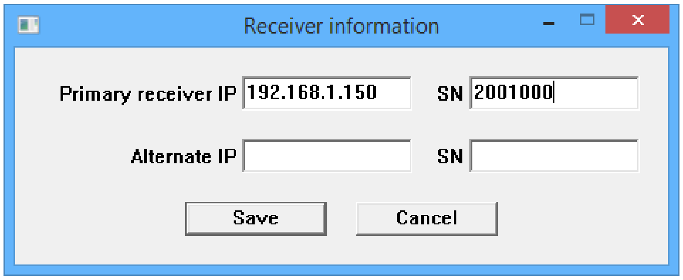
If “None” appears next to the “Primary rcvr” and the “Alternate,” the IP address and serial number have not been entered. Before accessing and saving playlists on the AMR-100, click on the “Change receiver info” button to add the IP address and serial number of one or two receivers.


PlaylistEditor 005

Primary rcvr: None

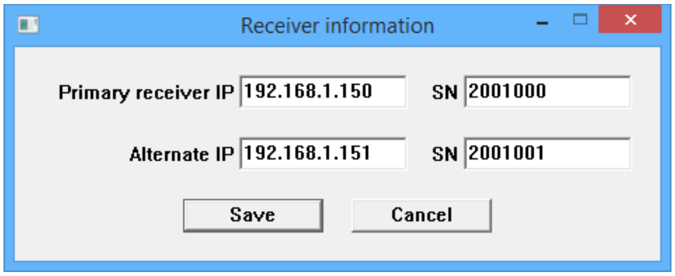
Alternate: None

Input the primary receiver’s IP address and serial number. With only one receiver, leave the “Alternate IP” and “SN” blank. The “Primary receiver IP” address cannot be blank.


Receiver information

Primary receiver IP 192.168.1.150 SN 2001000

Alternate IP SN


Receiver information

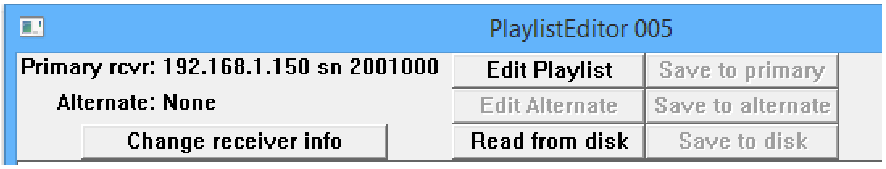
Primary receiver IP 192.168.1.150 SN 2001000

Alternate IP 192.168.1.151 SN 2001001

With two receivers, enter the alternate receiver’s IP address and serial number.

Click on “Save” to store the information.

After the configuration has been stored, The “Edit Playlist” button activates..

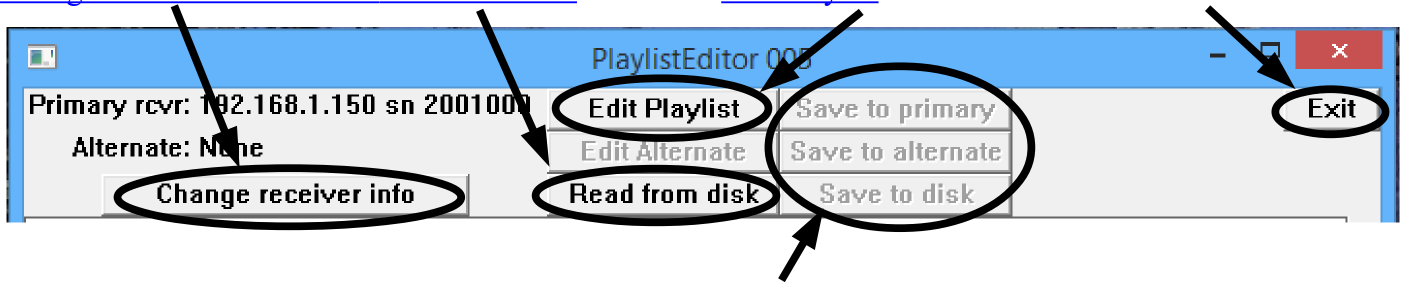

PlaylistEditor 005

Primary rcvr: 192.168.1.150 sn 2001000

Alternate: None

Buttons

Change Receiver InformationRead from disk Edit Playlist Exit


PlaylistEditor 005

Primary rcvr: 192.168.1.150 sn 2001000

Alternate: None

Save playlists

Change receiver information: This allows adding or changing the IP address and serial number of the target AMR-100.

Read from disk: This retrieves a file from a computer. When you click that button, a dialog box opens with the options to select your directory and file.

Edit playlist: This retrieves a playlist from an AMR-100.

Save playlists: These buttons save the playlist to an AMR-100 or to a disk.

Exit: This exits the program. If playlist has not been saved, the changes are discarded.

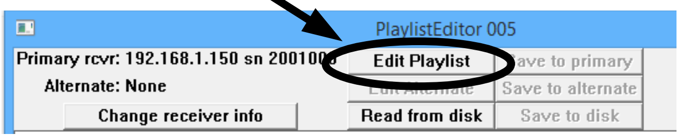
WARNING

Exiting the program without saving the playlist discards any changes.

Loading a playlist

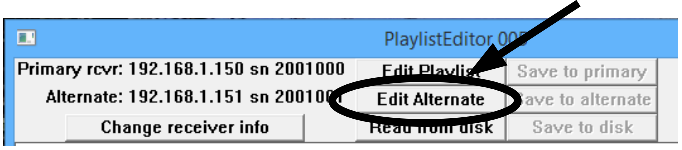
Playlists can be retrieved from an AMR-100.

With one receiver



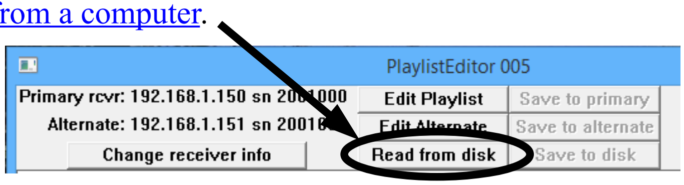
Primary rcvr: 192.168.1.150 sn 2001000
Alternate: None

With two receivers and using the alternate receiver



Primary rcvr: 192.168.1.150 sn 2001000
Alternate: 192.168.1.151 sn 2001001

Playlists can be retrieved from a computer.



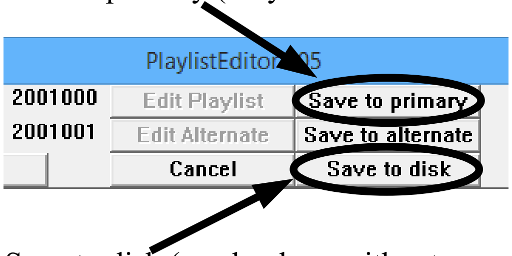
Primary rcvr: 192.168.1.150 sn 2001000
Alternate: 192.168.1.151 sn 2001001

The "Edit" button next to the IP address of an AMR-100 loads the playlist from that AMR-100. Without the alternate receiver IP Address and serial number, only the primary receiver's playlist can be loaded.

Saving a playlist

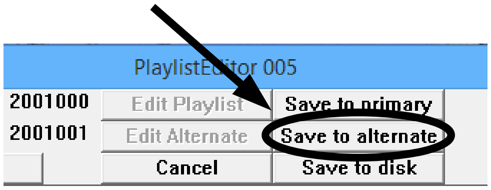
Playlists can be saved to one or both and/or a computer. Thus, two receivers can have the same playlist and the computer can have the backup playlist.

With one receiver
Save to primary (only receiver available)



2001000
2001001

Two receivers (either receiver can be selected)
Save to alternate



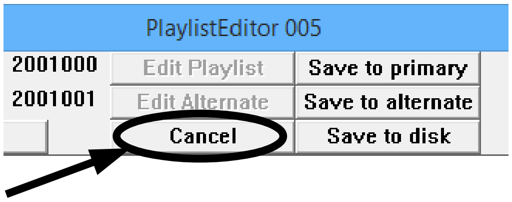
2001000
2001001

Save to disk (can be done without a receiver or with one or two receivers)

A playlist can be saved to one or both receivers or to a computer, regardless of where the playlist originated. A playlist opened from the primary receiver can be saved to either receiver or the computer. Likewise a playlist from the computer can be saved to either or both receivers to keep them synced.

Canceling an editing session

The "Cancel" button becomes active after opening a playlist. Click on "Cancel" to abort editing and discard any changes to the playlist.



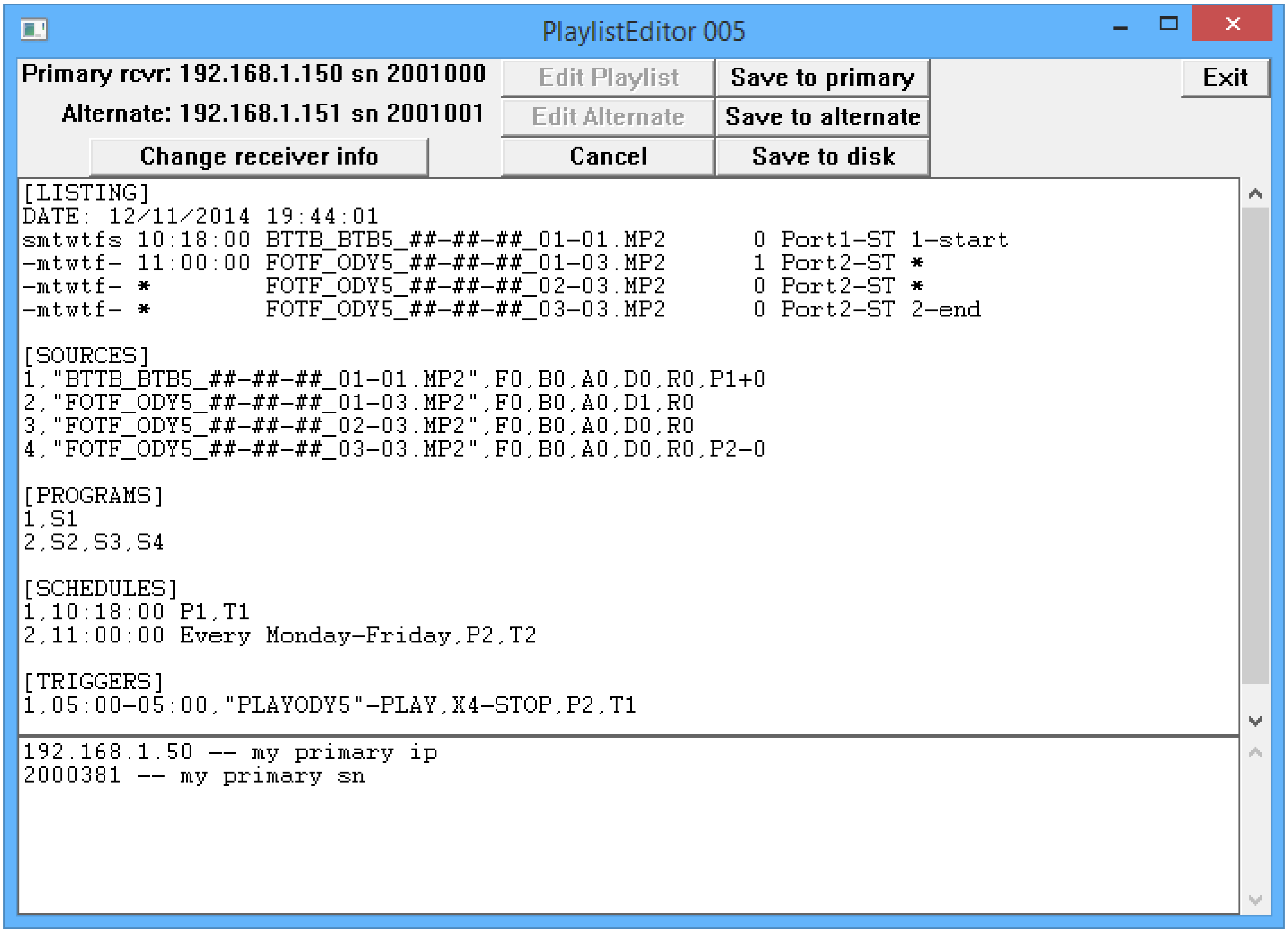
2001000
2001001

Cancel

Clicking on "Exit" or the Windows® "X" (close) also aborts the editing session and discards any changes made to the playlist.

Editing

Editing works like any simple text editor like Microsoft Notepad®. You can insert, delete, highlight, copy and paste text.



Primary rcvr: 192.168.1.150 sn 2001000

Alternate: 192.168.1.151 sn 2001001

```
[LISTING]
DATE: 12/11/2014 19:44:01
smtwtfs 10:18:00 BTTB_BTB5_##-##-##_01-01.MP2      0 Port1-ST 1-start
-mtwtf- 11:00:00 FOTF_ODY5_##-##-##_01-03.MP2      1 Port2-ST *
-mtwtf- *        FOTF_ODY5_##-##-##_02-03.MP2      0 Port2-ST *
-mtwtf- *        FOTF_ODY5_##-##-##_03-03.MP2      0 Port2-ST 2-end

[SOURCES]
1,"BTTB_BTB5_##-##-##_01-01.MP2",F0,B0,A0,D0,R0,P1+0
2,"FOTF_ODY5_##-##-##_01-03.MP2",F0,B0,A0,D1,R0
3,"FOTF_ODY5_##-##-##_02-03.MP2",F0,B0,A0,D0,R0
4,"FOTF_ODY5_##-##-##_03-03.MP2",F0,B0,A0,D0,R0,P2-0

[PROGRAMS]
1,S1
2,S2,S3,S4

[SCHEDULES]
1,10:18:00 P1,T1
2,11:00:00 Every Monday-Friday,P2,T2

[TRIGGERS]
1,05:00-05:00,"PLAYODY5"-PLAY,X4-STOP,P2,T1
```

```
192.168.1.50 -- my primary ip
2000381 -- my primary sn
```

After making edits, save the playlist to the desired AMR-100 and/or computer before clicking on the “Exit” button.

WARNING

There is no syntax checking, incorrect syntax will be saved and either not function or produce unpredictable results.