Lefferson Pilot Data Systems

A DIVISION OF

Lefferson Pilot Broadcasting



AUTOSELECT SOFTWARE GUIDE

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INTRODUCTION

Jefferson-Pilot Data Systems' AutoSelect is a software tool for radio station music programming. The package is intended to provide control over the songs a station plays, based on its format.

This document is a guide and reference for operating the AutoSelect software. Some of the features are outlined as well as the concepts that are unique to AutoSelect. The software described in this document is furnished under a license, and both software and this document may be used or copied only in accordance with the terms of such license.

AutoSelect consists of three major functions: Inventory, Format and Scheduling.

Before entering your inventory and format, you should read pages 2-8 to get an overview of AutoSelect's features.

FEATURES

Inventory

- o Up to 2500 songs
- o Up to 16 station-designated categories
- o Up to 26 station-designated characteristics
- o Up to 8 values within each characteristic
- o Intro/length/conclude information for each song
- o 255 "pockets" (or sub-categories) per category
- Double artist protection protect up to 255 different artists broken into five subdivisions
- o Double song protection up to 255 different types of songs within each system
- o Song history for last month detailing elapsed time, day, date, hour and slot number

Format

- o Daypart Restrictions on characteristics
- o Hourly Restrictions on characteristics
- Day/Time Restrictions (songs in categories played at the same time in a particular daypart)
- o Span Restrictions (minimum number of hours between plays of the same song within a category)
- o Library of 99 hourly format clocks
- o Artist and Song Protection for up to 3 hours
- o Determine Search Depth for each category, or pocket
- o Conditional (characteristic-to-characteristic) stepping per daypart
- o Additive scheduling (minimum/maximum characteristic values per checkpoint)
- o Minutes of music scheduling (minimum/maximum minutes per hour)

Scheduling

- o Schedule up to 1 week at one session
- o Schedule one category at a time for as long as one week
- o Retain a month of scheduling history
- o One week for reconciliaton
- o Full automatic scheduling according to Format
- o Re-schedule portions of a scheduled time period

CATEGORIES

Your song library, or Inventory, may be categorized into as many as 16 different broad types of material. You may call each category whatever you wish. Each song must belong to one and only one category.

EXAMPLE:

- A: TOP 50 (only 50 items in this category)
- B: Current
- C: Recurrent
- D: New Releases
- E: Gold (most of the inventory might be here)

It is usually helpful to designate one or more categories as inactive. Map out your categories with the CATEGORY form in the Appendix.

POCKETS

Each of your 16 categories may be further subdivided into sub-categories, or Pockets. There may be as many as 255 pockets per category, and up to 255 songs per pocket. Songs do not have to be in pockets, but those which are pocketed will have a pocket number in addition to a category designation. For example:

E.	Do You Know the Way	Dionne Warwick
E-56	Sweet Caroline	Neil Diamond
E-56	Holly Holy	Neil Diamond
E-56	I Am I Said	Neil Diamond
E.	I'd Like To Teach	Hillside Singers

CHARACTERISTICS

Regardless of the categories or pockets you choose, you may also attach as many as 26 characteristics to all of the songs in your Inventory. Characteristics represent the musical attributes of those songs, and may be identified however you wish. These characteristics allow you to daypart or "hourpart" the station, as will be discussed later.

Here's a sample of some characteristics you might use:

Tempo

(Fast-Slow)

Intensity

(Hard-Soft)

Mood

(Melancholy-Romantic-Happy)

Appeal

(Hip, Un-hip)

Style

(AOR, Country, Soul, Easy-listening)

Vocal

(Male, Female, Group, Instrumental)

Instrumental

(Brass, Strings, Woodwinds, Piano)

ASCAP/BMI

Reach & Frequency

Chart Position

Burn Factor

Familiarity

Preference

Local Interest

Daypart

Any songs you wish to prevent from playing back to back with another song (or a stopset) may be controlled by characteristics.

Refer to the Appendix for the proper CHARACTERISTICS form in mapping your characteristics.

Once you have identified the characteristics that will apply to your Inventory, you may pinpoint each song's characteristics with respect to an eight-point value scale. For instance, a song with a very slow tempo might have a tempo value of 1 or 2. A very fast song might have a tempo value of 7 or 8. Using the CHARACTERISTIC VALUES form in the Appendix, assign values to each of your characteristics. These values may designate a scale (1..8) as described above, an "on-off" function (0=off, 1=on) or a multi-value function (1=Male, 2=Female, 3=Duet, 4=Instrum).

CLOCKS

A Clock is used to specify the play order of music categories which may be played in a given hour. It may also contain information concerning the scheduling of material in that hour. The Clock contains the following information, covering one hour of time.

- 1. Name of the clock (EX: "Drive time", "Noon Hour")
- 2. Priority of criteria for testing each song in that clock
- 3. Additive values of characteristics for that hour of time
- 4. Optional hourly restrictions
- 5. Position of categories within the hour
- 6. Placement, length and type of stop-sets
- 7. Optional fill songs
- 8. Minimum/maximum minutes of music

This information applies every time the clock is used.

The appendix includes a CLOCKS form to assist you in specifying the qualities of each clock you will use.

AutoSelect holds 99 format clocks at any time. These clocks may be used at any time of the day or week, as often as you wish.

FORMAT RESTRICTIONS

Although AutoSelect always attempts to first schedule the "longest rested" song in each category, you may further control the scheduling of your inventory by setting various restrictions on your Format. These restrictions consist of:

1.	Characteristics:	Allowable characteristic values for songs within
		a daypart or an hour.
2.	Span:	The minimum time between plays of the same
		song within a category.
3.	Day/Time:	Re-play of a song in a category at the same time
		on another day or within the same daypart.
4.	Hour & Daypart:	Allowable characteristics and values of songs
		played in a certain time frame.
5.	Stepping:	Allowable changes between two songs based
		upon their values on the same characteristic.
6.	Artist Protection:	The number of songs (slots) between play of
		songs with the same artist code.
7.	Song Protection:	The number of songs (slots) between play of
		songs with the same song protection code.
8.	Search Depth:	The maximum number of carts for which a
		particular category may be searched before
		selecting a cart for airplay.
9.	Additive Values:	The minimum/maximum number of values within
		a designated characteristic within one
		checkpoint.
10.	Minutes of Music:	The minimum/maximum number of minutes and
		seconds within one hour.
11.	Conditional Stepping:	Allowable changes from song to song based upon
		their values on different characteristics.

MAIN MENU

The MAIN MENU, or primary menu, is shown below. It is through this menu that each of the three main functions are accessed: Inventory, Format and Scheduling.

Available Auto Select Functions:

"I" - Inventory

"F" - Format

"S" - Scheduling

Enter Function:

Each MAIN MENU function has several lower menus giving you more options. These menus operate in much the same manner as the MAIN MENU, with some differences in what options you are allowed.

GETTING STARTED

Before entering your inventory, there are several initial steps. First, by referring to your CP/M manual, you should <u>make a copy</u> of the master AutoSelect program disc provided by Station Research Systems and save this master disc for emergencies. You will use the AutoSelect <u>copy</u>. In your CP/M book, copying instructions may be found under "Backup Utility" or "Copy". Place the AutoSelect master in a safe place. Label the copy "KXXX AutoSelect Working Copy (date & Ver ?.?)."

Next, you should take a blank disc (unformatted) that you will use as your data disc, and <u>format this disc</u> according to the instructions in your CP/M manual under "Format Utility." In formatting a disc, you are making "shelves" on which the information in your inventory and format may be located. Label it "KXXX Inventory & Format (date)." When you have completed this, leave this disc in drive B and insert the "AutoSelect Working Copy" disc in drive A: (the one next to the screen), and re-boot.

Next, you will be asked for your password. Enter it in lower case. You will then see the MAIN MENU.

At the MAIN MENU, you should now create the proper "space on the shelves" for data on the discs. This is called INITIALIZATION. Type a single quote ('). You will see a menu labeled "Available INSTALL options:." Type "\$FF" to indicate you wish all files initialized. You will need to know on which disk each of your files will reside.

As a part of this process, AutoSelect will ask you for the 10-character names of all categories and characteristics. Enter each sequentially. You may use upper & lower case. If you have fewer categories or characteristics than are allowed, you may enter an extra /CR/ to skip to the next section. If you make a mistake, you may go back to this file later by calling for option 1 on the menu labeled "Available INSTALL Options" instead of "\$FF".

Later, you will be asked for the date you would like to start scheduling. Enter the date you predict your inventory and format will be ready to schedule. You may alter that date later if necessary by calling for option 9 on the menu labeled "Available INSTALL Options".

There may be some differences between this setup and your particular installation (hard disc, etc...). You will have an ammendum to point out the differences in these procedures.

ENTERING YOUR INVENTORY

If you do not have an alphabetical listing of all songs by artist in your inventory, you should create one, either manually or by generating a print from AutoSelect (see Edit & Print Inventory below).

Next to each on this list, you should note all of the information which describes each song in your inventory in these ways:

Length (Example: Intro/Total Length/Conclusion)

Category (Example: Currents, Recurrents, Oldies)

Characteristics & Values (Example: Tempo, Intensity, etc)

Artist Protection 1 (Example: solo, vocals)

Artist Protection 2 (Example: duos, groups)

Song Protection I (Example: title protection)

Song Protection II (Example: "sound" protection)

Artist Protection

By assigning an artist protection code (1 through 255) to all songs by one artist, you give AutoSelect an exact reference for each artist. This code number serves as the basis of separating songs by that artist. If that artist also appears in a group, assign a second artist protection number to each of his songs. For example, Willie Nelson might have the first artist protection number of 35 (for himself) and a second artist protection number of 215 (for Willie/Waylon duets). Example: (35,215) Willie Nelson songs would then be protected against songs by himself and duos in which he appears.

You may want to allow certain artists to appear on the air more frequently than others yet be protected from their own material. AutoSelect allows you to isolate these differences by giving you five sub-sections within the artist protection codes 1..255.

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Next to each on this list, you should note all of the information which describes each song in your inventory in these ways:

Length (Example: Intro/Total Length/Conclusion)

Category (Example: Currents, Recurrents, Oldies)

Characteristics & Values (Example: Tempo, Intensity, etc)

Artist Protection 1 (Example: solo, vocals)

Artist Protection 2 (Example: duos, groups)

Song Protection I (Example: title protection)

Song Protection II (Example: "sound" protection)

Artist Protection

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You may want to allow certain artists to appear on the air more frequently than others yet be protected from their own material. AutoSelect allows you to isolate these differences by giving you five sub-sections within the artist protection codes 1..255.

For example:

Artist Protection Codes	Rotation
150	15 minutes
51100	45 minutes
101150	1 1/2 minutes
151200	2 hours
201255	3 hours

Later, we will explain how these artist sub-sections are set. Of course, you may also protect all artists evenly, up to 3 hours per artist. See the form for ARTIST PROTECTION in the Appendix.

Song Protection

In addition to separating songs due to artist conflict, you may wish to separate songs for other reasons, such as conflict in titles, sounds, moods, etc. For this reason, Auto Select includes two song protection features that are used exclusively of each other. The procedure is similar to Artist Protection, but all 255 codes in Song Protection I and all 255 codes in Song Protection II will be protected for the same amount of time.

To log your song protection, see the forms in the Appendix labeled SONG PROTECTION. These forms allow you to assign up to 255 different song protection codes to certain variables you wish to separate. For example:

Song Protection II Song Protection I Code # (titles) Code # (sounds) Baby, I Need Your Lovin' 1 1 Nostalgic 2 Daddy's Home 2 Folk Dedicated to the One I Love 3 AOR/rock Goin' Out of My Head 4 **Bad Pressing** 5 Heard It Through the 5 Black Grapevine 6 Hey, Baby 6 Latin Hurt So Bad MOR 7 I Love How You Love Me 8 Wimpy Let It Be Me 9 9 Country 10 Light My Fire 10 Do-Wop 11 Words 11 Falsetto 12 . 12 British 13 Automobile 14 Message 15 Hippie 16 Instrumental 17 Novelty 18 Bubblegum 19 . 20 .

Some of the song protection qualities may be the same as the characteristics you have chosen.

Auto Select restricts the on-air appearance of songs with these qualities in different ways through song protection (separation of up to 3 hours) and characteristics (elimination from play and song to song stepping).

INVENTORY

Start from the MAIN MENU:

Available AutoSelect Functions:

"I" - Inventory

"F" - Format

"S" - Scheduling

Enter Function: I

The "Inventory" menu gives you a choice of changing (or Editing) your inventory or looking at (by Printing) your inventory.

The Inventory menu appears as follows:

Available Inventory Options:

"E" - Edit Inventory

"P" - Print Inventory

"S" - Song History

"Q" - Quit Inventory

Enter Option:

Edit Inventory

Available Inventory Options:

"E" - Edit Inventory

"P" - Print Inventory

"S" - Song History

"Q" - Quit Inventory

Enter Option: E

You will then be asked which cart you would like to modify. To add a cart simply type the cart number you wish, between 1 and 2500. AutoSelect will then display the following screen:

256 Carts in data based - Modifying Cart 256 - Category - D

	•	OPTIONS:		CAT	EGORIES
"T" - "A" - "C" - "P" - "L" -	title artist category pocket intro/length/clos	1	 characteristic artist protection song protection I song protection II to quit 	A B C D E F G	I J K L M N O P
Go Nov		I=2 II=14 =Song Protect	Moody Blues = ARTIST	(12,215) (Art Protect)	:09/3:22/F -Length-
		(CI	naracteristics)		
A B C D E F		G H I J K L	M N O P Q R	S T U V W X	Y Z

Enter Option:

When you type an option (shown in the upper left and center of the screen under "Options"), AutoSelect asks for the proper information on each option.

If, for instance, you type option "T", you will be asked for the title of the song. You then enter the title followed by a /CR/ and the inventory is updated. (AutoSelect puts all data in inventory into CAPS.)

Upon typing "L", you will be asked to enter the time of the introduction (:SS), a slash, the length of the entire song in minutes and seconds (MM:SS), another slash, and type of ending (for example: F = fade, C = Conclude, ! = false ending or surprises). This last character may refer to information other than the type of ending, such as ASCAP and BMI, but it must be a single character.

To change the values of any of the characteristics for that song, type "." and you are then asked which characteristic is to be updated. You may elect to change the value of one characteristic by typing the appropriate letter of the alphabet, or all characteristics by typing a period or an asterisk. Although only values 1-8 are "activated" for scheduling purposes, you may also select a "9" as a characteristic value. It will have no effect on scheduling like "0". When you are asked for a characteristic, type a "9" instead. You will see a ?9? prompt. Then type the characteristic which should have the value of 9.

When you type "@", you are asked which artist protection code you would like to enter, I or 2. Select either and enter the code (0..255). 0 means no protection. The code will then be displayed after the artist.

When you type a single quote (') or double quote ("), you will be able to assign a song protection code (0..255) for each song protection system.

Normally, you may exit the "modify" function with "Q", but an error will occur if you have not assigned the cart to a cateogry. Every song <u>must</u> be assigned to a category. If the error message appeared, type the /ESC/ key and assign the song to a category.

To put a song in a category, type "C". Then type the letter of the category in which the song belongs. Notice that the category is updated in the upper right hand corner of the screen.

To put a song in a pocket, type "P". Then, type the number of the pocket in which the song belongs. This number is displayed to the right of the category. If you change a song's category, you must re-enter the pocket number. A period after the category indicates the song is not in a pocket.

Print Inventory

Available Inventory Options:

"E" - Edit Inventory

"P" - Print Inventory

"S" - Song History

"O" - Quit Inventory

Enter Option: P

By selecting "P" on the inventory menu, you are choosing the Print Inventory option. You will see the following displayed on the screen:

** AutoSelect Inventory Print **

P)rinter, S)creen, F)ile, Q)uit:

You may direct the print to one of three places, as the menu indicates. You may choose to print one category or all of the inventory.

If you want to print a hard copy, select "P". If you merely want to see this list on the screen type "S".

If you type "F", you are asked to name a valid CP/M filename in the format (drive):(name).(ext). Drive is a single character ("A".."P"), name is 8 letters and ext is 3 letters. For example, if you type "B:CATEGRYA.SUN", your carts will go to a file on drive B and be stored under the name "CATEGRYA.SUN." (Don't type the "quotes" when typing a filename.)

You are then asked which category you would like to print. Type the letter of the category you wish to print. If you wish to print your entire inventory, simply type a /CR/.

You may then choose to print by:

T)itle, A)rtist, L)ength, or O)rder

Choosing T)itle will give you an alphabetical listing of titles in the section of inventory you chose.

Choosing A)rtist will give you an alphabetical listing by artist. Although it will appear with first and then last name, the artists are sorted by <u>last name first</u>. AutoSelect scans the artist from the end until it finds a blank, swaps the part before the blank (first name) and after the blank (last name) and ranks the newly formed artist. For example, "Diana Ross" becomes "RossDiana." If you would like to maintain a sorted list with multiple last names, insert an underscore (_) or period (.) between the last names. For example, "The Bee Gees" would be written as "The Bee Gees" and sorted by "Bee GeesThe."

The L)ength option refers to the total length of each song. AutoSelect will further ask you if you wish a printout in order of shortest to longest or longest to shortest. If you answer "yes", your carts will print from shortest to longest.

The O)rder option refers to two possibilities based on whether you have asked for a print of your entire inventory or just a category. If you have chosen a print of your complete <u>inventory</u>, the O)rder option will print all songs in order of cart number beginning and ending at those carts you designate. If, however, you have chosen a print of <u>one category</u>, the O)rder option will print songs in that category in order of the song most rested (off the air for the greatest number of hours) at the top and the song just played at the bottom.

Note: Changing a song's category will always cause it to be placed at the end of the new category.

You may abort at any time by typing any key and responding to the abort prompt with "Y". To resume, type "N".

After AutoSelect has displayed your carts on the screen, it will ask you to "type any key to continue". This is to insure that your carts do not disappear before you have a chance to adequately inspect them.

Song History

Available Inventory Options:

"E" - Edit Inventory

"P" - Print Inventory

"S" - Song History

"Q" - Quit Inventory

Enter Option: S

By selecting "S" from the Inventory Menu, you are selecting the Song History option. This option lets you see a list of when any song played over the last 3 or 4 scheduled weeks by number of hours from the most recent schedule, date, day of week, hour and slot.

After you have told AutoSelect where you would like to direct the print of the Song History (Screen, Printer, File), you are asked to provide AutoSelect with the numbers of the carts you would like to inspect. After the last song, type zero and /CR/. The songs will be displayed sequentially.

The most recent play will be displayed first, followed by later plays. If you have seen all the plays you need, type any key and the prompt at the bottom of the screen gives you a chance to 1) abort the Song History session, 2) move to the next cart, or 3) continue without interruption.

FORMAT

Start at the MAIN MENU:

Available AutoSelect Functions:

"I" - Inventory

"F" - Format

"S" - Scheduling

Enter Function: F

The Format Menu looks like this:

Available Format Options

"D" - Define Dayparts and Set Daypart Restrictions

"S" - Set Span and Day/Time Restrictions

"C" - Set and Place Clocks

"P" - Change Artist/Song Protection

"O" - Category Plotting Order and Depth of Search

"O" - QUIT and return to MAIN MENU

Enter Option:

DEFINE DAYPARTS AND DAYPART RESTRICTIONS

Available Format Options

"D" - Define Dayparts and Set Daypart Restrictions

"S" - Set Span and Day/Time Restrictions

"C" - Set and Place Clocks

"P" - Change Artist/Song Protection

"O" - Category Plotting Order and Depth of Search

"Q" - QUIT and return to MAIN MENU

Enter Option: D

The following menu which appears at the bottom of the screen, allows you to define dayparts and restrict each daypart.

Available Daypart Options

"D" - Define Dayparts

"S" - Set Daypart Restrictions

"O" - Quit

Enter Option: D

Define Dayparts

Daypart definition consists of assigning a start time to each daypart. The first daypart must begin at 12 midnight; the rest are variable and optional. Up to 8 dayparts are allowed per day, seven days a week. The menu provided for defining dayparts looks like this:

Define Dayparts

"A" - Add a Daypart

"D" - Delete a Daypart

"S" - Change the Start Hour of a Daypart

"O" - QUIT

Initially, all dayparts have a start hour of 11P. By selecting "A", you create a new daypart to the right of the current daypart(s). Selecting "D", you delete a daypart. Dayparts will contract from right to left each time you select "D." Select "S", and you may change the starting hour of a daypart. To do so, indicate the daypart number (2 to 8, left to right) for which the start time will be altered and enter the hour, followed by A, P or 12N (for 12 noon). A completed daypart list may look like this:

Hours 12M 3A 8A 12N 3P 6P 9P 11P (indicates start time for each daypart)

Mon

Tue

Wed

Thu

Fri

Sat

Sun

Set Daypart Restrictions

To place restrictions on a Daypart, select "Q" from the above menu. You will again see the Daypart Menu:

Available Daypart Options

"D" - Define Dayparts

"S" - Set Daypart Restrictions

"Q" - Quit

Select "S" to set daypart restrictions.

If you would like a daypart to resemble another daypart you have already entered, type "Y" in answer to the "Duplicate" question. You will then be asked which daypart you would like to duplicate onto another daypart.

If you answer "N" to the "Duplicate" question, AutoSelect then prompts you for the day and daypart you wish to restrict, by day of week and daypart number (not start time). You will see a listing of your characteristics, their values and minimum/maximum settings.

Daypart restrictions are those limitations you place upon the characteristics and values for scheduling songs within that daypart: allowable values, song to song stepping, and conditional stepping. If you choose to set daypart restrictions, you simply designate only the allowable values of characteristics of songs that may appear in the daypart.

To alter the restrictions on one characteristic in that daypart, type the letter of the alphabet for that characteristic. Note the display at the bottom of the screen. If all values (1-8) are showing at the bottom of the screen, AutoSelect will allow any song having those values to pass in this daypart during the scheduling process. If you wish to restrict one or more values, type the number you wish to restrict, and notice that the same number disappears at the bottom of the screen. (Entering a value (i.e. 1, 2, 3, 4, 5, 6, 7, or 8) will "toggle" the current value. If it is valid, it will become invalid and vice versa).

In the example below, for instance, no songs with a Tempo value of 1 or 2 or an Intensity value of 8 will play Wednesday between 12 Midnight and 3 a.m. Those values not displayed are "illegal" for this daypart.

Wed 12M - 3A

A:	Tempo	VAL	345678	Min - 0	Max - 0
B:	Intensity	VAL	1234567	Min - 1	Max - 0
C:	Mood	VAL	- 12345678	Min - 0	Max - 5

Song-To-Song Stepping

The minimum and maximum step indicates the allowable value-to-value transitions between songs on only that one characteristic. After entering any of the "illegal" values on that characteristic, a /CR/ causes AutoSelect to ask you to update the minimum step. If, for instance, you wish a song-to-song change of one value on that characteristic, enter a "1". Then, AutoSelect asks for the maximum step allowable for that characteristic(s) within the daypart. If, for instance, you wish no more than a change of five values on that characteristic, enter a "5".

A /CR/ in response to a step will leave that step unchanged. An "0" value for a step indicates that no testing will be done for stepping in regard to that characteristic. Another /CR/ will return to the Daypart menu.

Upon returning to the Daypart menu, you will notice that the daypart concerned now contains a "***" notation to note that restrictions exist for that daypart.

Hours	12M	3A	8A	12N	3P	6P	9P
Mon							
Tue							
Wed	***						
Thu							
Fri							
Sat							
Sun							

You may now set daypart restrictions for another daypart or return to the Format menu.

SET SPAN RESTRICTIONS AND DAY/TIME RESTRICTIONS

Available Format Options

"D" - Define Dayparts and Set Daypart Restrictions

"S" - Set Span and Day/Time Restrictions

"C" - Set and Place Clocks

"P" - Change Artist/Song Protection

"O" - Category Plotting Order and Depth of Search

"Q" - QUIT and return to MAIN MENU

Enter Option:

Span and Day/Time are the options AutoSelect uses to give "horizontal and vertical protection" to the replay of individual songs. These options control the major repeat functions of songs in your categories.

Individually, Span and Day/Time are defined as follows:

Span - the number of hours a song must rest in a category before it replays.

<u>Day/Time</u> - those hours (or groups of hours) over the past three weeks which prohibit a song from being played "now".

Before you set Span or Day/Time, you must tell AutoSelect which category you want to restrict with these options. Select the appropriate category (or /CR/ to return to the Format Menu). The Span and Day/Time grid for that category will be displayed as follows:

```
- Category -
                                                             E: Unfam LP "
NOW
                                                                    2
                                                                              Hours Ago
      1 2 3 4 5 6 7 8 9 0 1
                                      2
                                        3
                                               5
                                                  6
                                                        8
                                                                              D
1/
                                                                              A
2/
                                                                              Y
3/
                                                                              S
4/
5/
                                                                              Α
6/
                                                                              G
7/
                                                                              0
8/
9/
10/
11/
12/
 13/
 14/
 15/
 16/
 17/
 18/
 19/
 20/
 21/
```

S)pan, D)ay/Time or Q)uit to Format Menu

Notice that this grid is a "relative" time grid. That is, the numbers across the top and down the side are not specific hours of time. They represent hours and days ago, respectively.

f you select "S"pan, you will see this on the screen:

Enter # of hours a song must rest before replay (DD:HH): 4

When you enter the number of days and/or hours (with a colon between each), it causes the grid to be updated to display the number of hours which any song in the designated category must rest before being replayed. The number of hours of Span for this category is also displayed on the right side of the screen.

The Day/Time restriction is also displayed on this grid:

This option allows you to restrict play of a song in a category according to previous playings of the same song. In other words, if you choose to restrict a song from playing 24 hours later, select 00:24. Under this setting, a song may not be played "now" if it has been played 24 hours ago, even if the restriction on Span has expired. (This setting is seen on the following page in the upper right hand corner of the grid).

Setting Day/Time

Typing "D" for Day/Time causes the screen to display this prompt:

Enter time to restrict/unrestrict (DD:HH): 05:06

Enter the starting hour of the Day/Time restriction; in days and hours.

Entering the day, a colon and time produces another prompt for the <u>number of</u> hours forward from the selected time to be changed.

"How many hours do you wish to change (0..255)?" 7

Responding to this prompt causes the grid to be redisplayed with an indication of the "width" of the restriction in the past three weeks. You may set as much "width" as you wish, and you may set as many separate Day/Time restrictions as you wish.

EXAMPLE

In the following example, the song in the Unfamiliar LP category must rest for at least 4 hours (Span Restriction). Any song in this category may not be played "now" if it has played in the same hour one day ago — 24 hours ago — or: 5 days, 6 hours ago through 5 days 12 hours ago (Day/Time Restrictions).

Category —E: Unfam LP

```
Span Restriction
                                                                                    4 Hours
NOW
                                                                           2
                                                                              3
                                                                                      Hours Ago
                                            3 4 5 6
                                                                                      D
1/
                                                                                      Α
2/
                                                                                      Y
3/
                                                                                      S
1
5/
                                                                                      Α
6/
                                                                                      G
7/
                                                                                      0
8/
9/
10/
11/
12/
13/
14/
15/
16/
17/
18/
19/
20/
41/
```

SET AND PLACE CLOCKS

Available Format Options

"D" - Define Dayparts and Set Daypart Restrictions

"S" - Set Span and Day/Time Restrictions

"C" - Set and Place Clocks

"P" - Change Artist/Song Protection

"O" - Category Plotting Order and Depth of Search

"Q" - QUIT and return to MAIN MENU

Enter Option:

If you select Format menu option "C" (Set and Place Clocks), you will see the following grid:

Hours 12 1A 2A 3A 4A 5A 6A 7A 8A 9A 10 11 12 1P 2P 3P 4P 5P 6P 7P 8P 9P 10 11

Mon

Tue

Wed

Thu

Fri

Sat

Sun

dit Clocks د طائع

"E" - Edit clocks

"P" - Place clocks in Grid

"S" - See names of clocks (optional hard copy)

"Q" - Quit clocks, return to FORMAT MENU

You may hold as many as 99 clocks at any time. To change any clock, select "E" for Edit Clocks. You then have the option to Duplicate if you wish to copy a clock already completed, just as in Dayparts.

The Duplicate option allows you to copy a clock you have made onto another empty clock and then make a slight alteration to make it unique. AutoSelect merely requests a clock number to copy <u>from</u>, and a clock number to copy <u>to</u>.

If you choose not to Duplicate, AutoSelect will request which clock (by number) to modify (0..99). Select a number, and the following screen will be displayed.

You will then see: Clock 12 - KXXX All-night

Available CLOCK EDIT options:

P - place categories

T - test order

R - set hourly restrictions

A - additive values

M - minutes of music

C - number of checkpoints

N - name the clock

Enter Option:

Place Categories (and Stopsets)

P - place categories

T - test order

R - set hourly restrictions

A - additive values

M - minutes of music

C - number of checkpoints

N - name the clock

Enter Option: P

You may place a combination of up to 32 songs, fillers and/or stopsets on each clock.

CLOCK I AM DRIVE

```
1/
     :0 - :12
                      NEWS/WEATHER
                                                         ("*" indicates a filler)
2/
     * J
3/
       Α
4/
5/
6/
7/
8/
9/
10/
11/
12/
13/
14/
15/
16/
           (checkpoint)
17/
18/
19/
20/
21/
22/
```

I)nsert, C)hange, R)emove, U)p, D)own, B)eg, E)nd, Q)uit

Although you are allowed 32 slots, standard screens allow only 21 to be displayed at one time. There are four commands to show you more of the slots:

"U" - Typing "U" causes the entire screen to scroll up 1 slot.

"D" - Typing "D" causes the entire screen to scroll down 1 slot.

"B" - Typing "B" causes the screen to be re-displayed with slot 1 at the top.

"E" - Typing "E" causes the screen to be re-displayed with slot 32 at the bottom.

You may Insert, Change, or Remove an item from a slot. "Inserting" a slot causes all successive slots including the current one to be moved forward one slot. Anything located in slot 32 is shoved off the end and is lost. "Changing" a slot causes no action to any other slot than the one being changed. "Removing" a slot causes that slot to be removed. All successive slots will be moved back one slot. Slot 32 will always be blank.

If you choose one of these options, you are asked at which slot you wish to edit the clock. Further prompts are given to allow you to insert the type of program material in each slot:

0) exit, 1) cart, 2) filler, 3) stopset 4) blank:

If you select "1" for cart or "2" for filler, AutoSelect prompts on the right side of the screen with a list of your categories. You must choose which category (or stopset) will be scheduled for any of the 32 slots.

When you type "3" for a stopset from the above prompt you will see:

Slot 3 :00 -:00

B)egin, E)nd, N)ame, A)dd, S)how, Q)uit:

Rather than typing in a stopset name each time it occurs, AutoSelect maintains a "library" of 50 stopset names. When you name a stopset, you simply call up the number which corresponds to that stopset name. "A" allows you to add or change a stopset in the library. You will be asked for the library number of the stopset you wish to add/change, the name of the stopset, and the characteristic values assigned to it. Enter the number, then the 20 character stopset. Stopsets have characteristic values so you can step into or out of them with certain types of music. A /CR/ will not affect the current value and a "0" will cause that characteristic to not be tested for stepping. AutoSelect will allow you to ignore this stopset for stepping purposes and use the next cart instead. To cause AutoSelect to "look through" the stopset for a characteristic, simply type a "9". (To list your stopsets, see the STOPSET form in the Appendix.)

A stopset contains a beginning time, an end time, 20-character name and a complete set of characteristics. (These characteristics are <u>not</u> used to schedule the stopset, but rather to provide a reference point for stepping in or out of a stopset to the next or previous cart.)

"B" and "E" allow you to indicate the beginning and end minutes of the stopset. "N" allows you to enter the library number of the stopset you wish to assign this slot.

"S" (for Show the Stopsets) allows you to generate an optional hard copy of the stopset names in a similar fashion to clock names discussed below. This should match your STOPSET form.

Test Order

P - place categories

T - test order

R - set hourly restrictions

A - additive values

M - minutes of music

C - number of checkpoints

N - name the clock

Enter Option: T

This option allows you to specify the order which characteristics AutoSelect will test when scheduling a song within each category. The following Test Order Menu is provided:

Characterist	ics	Additional Restrictions						
A: tempo	N:	" _ "	Span					
B: intensity	0:	"•"	Day/Time					
C: mood	P:	" @ "	Artist Protection					
D: appeal	Q:	11 1 11	Song Protection I					
E:	R:	11 11 11	Song Protection II					
F:	S:	n i n	Minutes of Music					
G:	T	" 0 9 "	Conditional Stepping Grids					
н:	U:	Test order	: BOAD-!2CJR					
I:	V:	Unused:	PONMLKIHGFE'"98765431					
J:	W:							
K:	X:							
L:	Y:							
M:	Z:							
N:								

I)nsert, R)emove, C)hange, Q)uit:

The Span, Day/Time, Artist and Song Protection, Minutes of Music and Conditional Stepping features are prioritized just like characteristics. A "." indicates Day/Time, a "-" indicates Span Restriction an "@" indicates Artist Protection, a single quote indicates Song Protect I, double quotes indicate Song Protect II, and "!" indicates Minutes of Music, and "0" through "9" a Conditional Stepping Grid.

You may insert or remove items to be tested or change an existing item in the "Test Order" list by selecting the appropriate prefix at the bottom of the screen and the appropriate restriction code (A through Z -, ., Q, ', ",! or 0-9.) Songs in each category will be tested accordingly in that hour.

Set Hourly Restrictions

P - place categories

T - test order

R - set hourly restrictions

A - additive values

M - minutes of music

C - number of checkpoints

N - name the clock

Enter Option: R

This provides the same menu and options as described within the Daypart Restrictions Menu. This additional hourly restriction applies only to this clock to further refine the Daypart Restrictions or "hourpart" within each daypart where this clock is used. For this hour, you may make additions to those illegal values in the dayparts or set additional stepping within a characteristic.

For each clock, AutoSelect allows you to prohibit song to song transitions on different characteristics. These are called Conditional Restrictions.

If, for instance you wish to prevent a song with a Tempo value of 1 (a slow song) from following a song with an Intensity value of 8 (a hard song), you may do so by setting up a Conditional Restriction on one of nine grids.

First, select an empty grid (1-9). Then, designate the letter "FROM" characteristic (in this case, Tempo) and then the "TO" characteristic (in this case, Intensity). You will then see this grid appear on the screen, with the appropriate characteristic on the appropriate axis.

		TO I: Intensity							
		1	2	3	4	5	6	7	8
	1								X
	2								
From T: Tempo	3								
	4								
	5								
	6								
	7								
	8								•

The prompt at the bottom of the screen will ask you for the restricted "From" and "TO" values. Enter these as directed (in this case, "l" - for Tempo - and "8" - for Intensity). To return to the Clock Menu, enter /CR/.

Additive Values

By selecting "A" from the CLOCK EDIT Menu, you may specify the minimum

and maximum number of values from each of six characteristics to occur during

each checkpoint when this clock is used.

The screen asks you for which of six positions you wish to set, 1-6. (There is no

priority given to one number over the other). After selecting one of these

numbers, identify which characteristic (A-Z) will apply to this number. Then

tell the system the minimum number of values required from this characteristic

and the maximum number of values allowed from the same characteristic

between checkpoints. (See "Number of Checkpoints" below.)

Minutes of Music

By selecting "M" from the CLOCK EDIT Menu, you can specify the minimum

and maximum minutes of music to occur in the hour when this clock is used.

To set the minimum or maximum number of minutes per hour, simply respond

to the prompts with the appropriate number of minutes, a colon, and the

appropriate number of seconds.

Number of Checkpoints

P - place categories

T - test order

R - set hourly restrictions

A - additive values

M - minutes of music

C - number of checkpoints

N - name the clock

Enter Option: C

_ 41 _

AutoSelect will check for additive characteristic values at regular intervals as the clock is being scheduled. If you wish to check only once each hour for the accumulation of values on a particular characteristic, you need only one checkpoint. If you wish to check on the accumulation of characteristic values five times each hour, you must set <u>five</u> checkpoints, which will be evenly distributed among the 32 slots in your clock. You may have zero to five checkpoints per clock. Remember that you must have at least one checkpoint per clock if you wish to consider additive characteristic values <u>or</u> minutes of music in that clock. Also, remember that Additive Values for each clock are designated by checkpoints, but Minutes of Music are designated for the entire clock even though the songs are "checked" for time at each checkpoint.

Name the Clock

P - place categories

T - test order

R - set hourly restrictions

A - additive values

M - minutes of music

C - number of checkpoints

N - name the clock

Enter Option: N

This option prompts for a 20 character name to identify each clock in addition to its number. Include your call letters on each, as the name of the clock (and the number) will be displayed at the top of the printout of each playlist.

Place Clocks in Grid

Clock Menu:

"E" - Edit clocks

"P" - Place clocks in Grid

"S" - See names of clocks (optional hard copy)

"Q" - Quit clocks, return to FORMAT MENU

This is an 168-hour grid for locating each clock at each hour of the week.

If you enter a "P", AutoSelect asks you to reply to the following questions.

In which Day do you wish to start placing clocks (Mon..Sun): Mon

Enter Hour: 3P

Which clock for Mon-3P (0..99)

Enter day of the week, a particular hour and a clock number, type /CR/ and you will see that the grid now contains that number in the appropriate place. The screen will display the following prompt:

Which clock for Mon-4P (0..99)

If you select another clock, it will place it in the next space. To stop placing clocks on the grid, type a zero and /CR/ will return you to the Clock Menu.

See Names of Clocks

"E" - Edit clocks

"P" - Place clocks in Grid

"S" - See names of clocks (optional hard copy)

"Q" - Quit clocks, return to FORMAT MENU

Here, you can see the names of the numbered clocks which have already been entered. An optional hard copy may be obtained and matched with your clock forms from the Appendix by typing ctl P (to turn the printer on). For example:

* clock names *
24/ ALL-NIGHT (REGULAR)
37/ DRIVE-TIME (Monday)

/CR/ to continue ctl P for Print on/off ctl S to pause

Holding the "control" key down while typing "P", or "ctl P" turns the printer on. If you type ctl P, everything that appears on the screen will show on the printer. After the names have printed, if the printer is on, you <u>must</u> type ctl P again to shut the printer off.

Select "Q" to return to Format Menu.

CHANGE ARTIST/SONG PROTECTION

Available Format Options

"D" - Define Dayparts and Set Daypart Restrictions

"S" - Set Span and Day/Time Restrictions

"C" - Set and Place Clocks

"P" - Change Artist/Song Protection

"O" - Category Plotting Order and Depth of Search

"Q" - QUIT and return to MAIN MENU

Enter Option: P

By selecting "P" at the Format Menu, you may change the number of slots you wish to protect for the replay of artists and songs.

Available protection options:

•	Protection Codes for:	Protection is
<u>Prefix</u>	Song I Song II Artist	now set for
Α	1-255	slots
В	1-255	slots
C .	1-50	slots
D	51-100	slots
E	101-150	slots
F	151-200	slots
G	201-255	slots

Q - Quit to FORMAT MENU

Enter prefix:

The artist protection codes (described under Inventory) may be broken into five sections, and protected by a different number of slots for each section. (Refer to the ARTIST PROTECTION form in the Appendix.)

The song protection codes are not broken into sections. One slot setting controls all 255 codes in each. You may, of course, set a different number of slots for Song Protection I and Song Protection II.

These protection systems will always presume that there are 32 slots per hour, whether or not all 32 slots are filled in each clock. For this reason, you should spread out your filled slots within each hour, inserting blank slots where appropriate.

Since there are 32 slots per hour, you may wish to assign eight slots per quarter-hour. Under this plan, those carts, fillers and stopsets in the first quarter-hour would be slots 1 through 8, 2nd quarter - slots 9 through 16, 3rd quarter-slots 17 through 24, and 4th quarter-slots 25 through 32.

CATEGORY PLOTTING ORDER & DEPTH OF SEARCH

Available Format Options

"D" - Define Dayparts and Set Daypart Restrictions

"S" - Set Span and Day/Time Restrictions

"C" - Set and Place Clocks

"P" - Change Artist/Song Protection

"O" - Category Plotting Order and Depth of Search

"Q" - QUIT and return to MAIN MENU

Enter Option: O

By selecting "O" from the Format Menu, you may set the order in which categories will be plotted into the playlist and also how deep AutoSelect may search in each category and/or pocket to find the best song choice.

AutoSelect displays a screen indicating your options:

Plotting Order and Search Depth below:

# Category	(category, pocket)
1/A:	(200,)
2/L:	(54,)
3/C:	(,)
4/D:	(,)
5/E:	(7, 10)

Unused: BFGHIJKMNOP

In the above example, all Category A songs will be plotted first, regardless of the number of hours being scheduled. AutoSelect will only look at the 200 longest rested songs in the A category before choosing one for air play. Then the Category L songs will be plotted, using only the immediate 54 most rested

SCHEDULING

SCHEDULE MENU

Available AutoSelect Functions:

"I" - Inventory

"F" - Format

"S" - Scheduling

Enter Function:

The Schedule Menu allows the user to generate a song-by-song playlist according to the rules set up in the Format section and the songs in Inventory. Some peripheral options are included in this menu which affect the scheduling history.

Available Schedule Options:

"S" - Schedule Session

"R" - Reconcile Session

"P" - Re-print Playlist(s)

"Q" - Quit Schedule, return to MAIN MENU

Enter Option:

Schedule Session

After typing "S" from the SCHEDULE MENU, you will see information displayed at the top of the screen:

-History date:	(Sun)	04/07/82	10 A
Scheduled up to:	(Mon)	04/08/82	9A
Start Scheduling	(Mon)	04/08/82	9A

- -Hours to schedule this session: 24
- -Log report to screen
- -- Print hourly tests: OFF

Notice that AutoSelect pauses for a few seconds after displaying the "start scheduling" message. In most cases you will start scheduling from where you left off last time, and therefore you do not need to make any changes. However, these few seconds pause allow you to make a change. Merely type the space bar and the changed instruction.

The same feature holds true for the "hours to schedule this session". You are also given an option on printing the log file and hourly tests.

Workspace

Workspace is defined as the time between History and the "Scheduled up to" date. In the above example, this workspace is from Sun., 04/07/82, 10A to Mon., 04/08/82, 9 AM. Changing a schedule (reconciling or rescheduling) is only possible after the History date and before "Scheduled up to".

Workspace will never be longer than one week. As you schedule an hour, the same hour for last week is made permanent in history.

Making History

If you are going to eventually schedule past History by more than a week, AutoSelect will "make" the additional history automatically. This involves updating a permanent Span value (last time played) and clearing the area one week ahead for workspace.

Inside a Scheduling Session

After initialization, the session parameters are displayed and written to the log file. The session does three things:

- 1) Schedules the carts to form a playlist while simultaneously...
- 2) Generating a log report after which...
- 3) The playlist(s) are printed.

Slots are chosen one at a time by the following rules:

The first slot containing the first category in the plotting order is scheduled followed by the remaining slots of that category for all hours in the current session. Then the second category in the plotting order is scheduled. This continues until that list is exhausted. Categories not included in the plotting order are not scheduled!

An element is defined as a group of songs in one pocket or a song in no pocket. If a cart is chosen and belongs to a pocket, that song will go to the end of the pocket and then the entire pocket will go to the end of the list.

User Intervention

Any time before playlist printing starts, you may type any key to cause AutoSelect to pause. AutoSelect will then resume scheduling automatically.

If you wish to abort the session, type /ctl/ "O" (the letter) and you will return to the MAIN MENU.

After the scheduling has finished, AutoSelect will save all of its work to the disk. IT IS IMPERATIVE THAT YOU DO NOT REBOOT DURING THIS PROCESS. When that has finished, the playlists will begin printing. If you desire, you may abort with /ctl/ "O" and all of the scheduling session will be retained for later use.

When the playlists have been printed, there will be a short pause followed by the standard greeting containing the version number and then the request for the password. This is done so that, if you are leaving AutoSelect to schedule a week overnight, you may prevent anyone from tampering with the system before you return to an unattended system. (Make sure, however, that the computer is left on. Powering down with the discs inserted could cause erasure). After entering the password, you will be at the MAIN MENU.

Reconcile Session

The reconcile session is designed to match what was scheduled to what was actually played or what actually should play. Each playlist(s) should be a true account of what appeared (or will appear) on the air so that proper Span-Day/Time restrictions may be maintained. You may reconcile in order to change a playlist before or after it is aired.

There are two preliminary options in a reconcile session. You may elect to scan ALL carts scheduled, or include/exclude FILL songs without bothering with the rest.

Regardless of the option, you are asked to supply the date, day and hour you would like to start reconciling in addition to the number of hours you would like to reconcile. These hours must fall within the workspace.

If you chose to scan all slots, you will be shown the contents of each scheduled slot. Compare it with your reconciled playlist. There are 4 choices:

- 1) Leave the slot unchanged
- 2) Change the cart
- 3) Insert another cart
- 4) Remove that cart

If you elect to scan for FILLS only, you are asked if each scheduled fill was actually played without stopping for the regularly scheduled carts.

After a reconcile session, the entire workspace is updated if you have made any changes.

RE-PRINT PLAYLIST(S)

By selecting "P" from the Schedule Menu, you may begin the process of printing playlists which have been scheduled in the past month.

AutoSelect first asks you for the day and hour at which you wish to begin printing hourly playlists. Then, AutoSelect asks for how many hours from that point you wish to print playlists.

A slot is scheduled by testing the element on the top of the category list (most rested in each category) first. If that element fails any test, the next most rested element is tested. This continues until 1) an element passes all tests or 2) the category depth is reached 3) the entire list is scanned. If the element is a pocket, then each cart in the pocket is tested until 1) a cart passes all tests 2) the pocket depth is reached 3) the entire pocket is scanned. If the entire list has been scanned or the category depth has been reached, and no carts passed, the cart that passed the most tests closest to the top top of the list is chosen. Hence, you will always have a scheduled slot.

APPENDIX A GLOSSARY

Category:

a general grouping of program material chosen by the radio station to identify a broad class or type of music for the purpose of scheduling.

Cart:

a (musical) selection to be scheduled.

Characteristic:

Inventory-wide attributes of each cart as compared with others.

Clock:

a definition of the type of programming which will occur in a one hour period, broken into slots.

Day:

24-hour period.

Daypart:

one or more hours defining a period of time which will be scheduled according to Daypart Restrictions.

Day/Time Restriction:

a scheduling limitation requiring a song not to be played in certain hours, based on its play over the past month.

Element:

A group of carts in a pocket or one cart in no pocket.

Hour:

the smallest unit of time that will be scheduled according to Hourly Restrictions.

Slot:

a place on the clock, to be filled with either stopsets or songs.

Stepping Sequence:

the amount of change in each characteristic from one song to those next to it.

Stop Set:

a non-music period scheduled by its definition in a clock.

Span Restriction:

the number of hours required to pass before the replay of a song in a certain category.

** AUTOSELECT FORMS **

Inventory

CATEGORIES

CHARACTERISTICS

CHARACTERISTIC VALUES

INVENTORY ENTRIES

Format

DAYPART GRID

DAYPART RESTRICTIONS

SPAN DAY/TIME FORMAT

CLOCK NAMES

CLOCK PLACEMENT GRID

CLOCKS

STOPSETS

ARTIST PROTECTION

SONG PROTECTION I

SONG PROTECTION II

CATEGORY PLOTTING ORDER & SEARCH DEPTH

ADDITIVE VALUES GRID

CONDITIONAL RESTRICTION GRID

CATEGORIES

Date	:/	
A: .		
B: .		
C:		
D: .		•
E:		
F:		-
G:		-
H: (
I:		
J:		
K:		
L:		_
M:		-
N:		_
O:		_
P:		

CHARACTERISTICS

Date://	
A:	
B:	
C:	
D:	
E:	
F:	
G:	
H:	
l:	
J:	
K:	
L:	
M:	
N:	
O:	
P:	
Q:	
R:	
S:	
T:	
U:	
V:	
W:	
X:	
Y:	
Z:	

CHARACTERISTIC VALUES

Date	e:/	•
	Meaning	Comment/Example
Chai	racteristic:	
V A L U E S	1	
Chai	racteristic:	
V A L U E S	1	
Cha	racteristic:	
V A L U E S	1	
Cha	racteristic::	
V A L U E S	1. 2. 3. 4. 5. 6	
3	7. 8.	

*** AutoSelect Forms ***

INVENTORY ENTRIES

Date Entered:

Date Entered: / /

Date Entered: /

Date Entered: /

Date Entered: /

DAYPART GRID

Date Entered:/									
	1	2	3	4 .	5	6	7	8	
Hours:	12M								
	+		++	+	+	+	+	+	
Mon	4		\ +		+		+	+	
Tue	7		· .						
Wed	+		++	+					
Thr	+		++ 		+	·+	+	+	
Fri	+		rT		,				
Sat	+		++		+				
Sun	+		++ ++	+			+	+	

DAYPART RESTRICTIONS

Date Entere	ed:/													
Daypart Nai	me:												••	
(day)	(hours)	to				_								
A:			1	2 .	3	4	5	6	7	8	Min		Max	
B:			1	2	3	4	5	6	7	8	Min		Max —	
C:			ĩ	2	3	4	5	6	7	8	Min	-	Max	
D:			1	2	3	4	5	6	7	8	Min		Max	
E:			1	2	3	4	5	6	7	8	Min		Max	
F:			ī	2	3	4	5	6	7	8	Min		Max	
G:			1	2	3	4	5	6	7	8	Min		Max	
H:			1	2	3	4	5	6	7	8	Min		Max	
ī:			ī	2	3	4	5	6	7	8	Min		Max	
J:			1	2	3	4	5	6	7	8	Min		Max	
K:			ī	2	3	4	5	6	7	8	Min		Max	
L:			ī	2	3	4	5	6	7	8	Min		Max	
M:			1	2	3	4	5	6	7	8	Min		Max	
N:		•	ī	2	3	4	5	6	7	8	Min		Max —	
0:			ī	2	3	4	5	6	7	8	Min		Max —	
P:			ī	2	3	4	5	6	7	8	Min		Max —	
Q:			ī	2	3	4		6	7	8	Min		Max —	
×:			î	2	3	4	5 5	6	7	8	Min			
· .:			ī	2	3	4	5	6	7	8	Min		Max —	
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υ <u>:</u>			î	2	3	4	5	6	7	8	Min		Max —	
v:			ī	2	3	4	5	6	7	8	Min		Max —	
w:			î	2	3	4	5	6	7	8	Min		Max —	
x:			ī	2	3	4	5	6	7	8	Min		Max	
Ŷ: —			î	2	3	4	5	6	7	8	Min		Max	
7.			î	2	3	i.	5	6	7	8	Min		Max	

*** Auto Select Forms ***

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SPAN-DAY/TIME FORMAT

Date	E E	nte	red	: _					_/_																		
Cate	go	ry:			•					-															٠,		
NOW		1	2	3	4	5	6	7	8	9	1 0	1	1 2	1 3	1 4	1 5	1	1 7	1 8	1	2	2	2 2	2	2	F	Hours Ago
0/.		<u>.</u>	<u>۔</u>	٠.	•	٠.	:	, :	:	· :	:	•	-:	:	•	:	:	•	:	:	:	:	:	:	:		-CATEGORY-
1/ -	•	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	}	
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3/	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	,	
4/	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	F	
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6/	. :	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:) Restrictio
7/	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:		
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CLOCK NAMES

1.	50.	
	51.	
4.	53.	.,
	54.	
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9.	59 ·	
11.	60	
11. 12.	61	
13.	62	
17.	63	
	611	
15.	65	
	,66.	
17.		
18.	68.	
19.	69.	
20.	70	
21.	70.	
22.	71.	
23.	74.	
24.	73.	
2).	74.	
40.	77.	
27.	/b.	
40.	//.	
47.	70.	
30.	79.	
71.	81.	
<i>J</i> 4.	0	
33. 34.	.04.	
J7.	8/L	
the state of the s	85.	
36. 37.		
	87	
	88.	
<i>y</i> 0.	89.	
	90.	
4.5	91.	
42.	92.	
43.	93.	
44.	94.	
45.	94. 95.	
46.	96.	
77 •	97.	
48.	97.	
49.	70.	

CLOCK PLACEMENT GRID

Date B	int 	ere 	d:			_/_			/		_/																			
Hours	- 1	2M	la	2a	. 3a	a 4a	3 5	a 6	a 7	a 8	3a	9a	10) 1.	1	12n	lp	2 _F	o 3 ₁	o 4	p 5	P	6р	7 p	8 ₁	p 9	P	. <i>,</i> 10	11p	ı
Mon	:		-	:	:	:	:	:	:	:		 :	:	:	:		:	:	:	:	:	:		:	:	:	:		: :	:
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Sun	:			 :	:	:	:	:	:	:	:	:	:	:	:		:	:	:	:	:	:		:	:	:	:		:	:
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Min

Max

CLOCKS

	·
	Special Characteristics
Date Entered://	"." Span .,
Clock Number	" - " Span ., " - " Day/Time
·	"@" Artist Protection
Clock Name	""" Song Protect I """ Song Protect II
	"!" Minutes of Music
	"0""9" Conditional Stepping Grids
Test Order (Chars)	
Checkpoints	
Slots	Clock Restrictions
1. A:	12345678Min <i>M</i> ax
2. B:	1 2 3 4 5 6 7 8 Min Max
3. C:	1 2 3 4 5 6 7 8 Min Max
4D:	1 2 3 4 5 6 7 8 Min Max
5. E:	1 2 3 4 5 6 7 8 Min Max
6. F: G:	
8. H:	1 2 3 4 5 6 7 8 Min Max
9. I:	1 2 3 4 5 6 7 8 Min Max
10. J:	1 2 3 4 5 6 7 8 Min Max
11. K:	1 2 3 4 5 6 7 8 Min Max
12. L:	1 2 3 4 5 6 7 8 Min Max
13. M: N:	1 2 3 4 5 6 7 8 Min Max
15. O:	1 2 3 4 5 6 7 8 Min Max
16. P:	1 2 3 4 5 6 7 8 Min Max
17. Q:	1 2 3 4 5 6 7 8 Min Max
18. R:	1 2 3 4 5 6 7 8 Min Max
19. S:	1 2 3 4 5 6 7 8 Min Max
20. T:	1 2 3 4 5 6 7 8 Min Max
21. U: V:	1 2 3 4 5 6 7 8 Min Max
22	1 2 3 4 5 6 7 8 Min Max
24 X:	1 2 3 4 5 6 7 8 Min Max
25. Y:	1 2 3 4 5 6 7 8 Min Max
26. Z:	1 2 3 4 5 6 7 8 Min Max
27.	Conditional Postmiotions
28	Conditional Restrictions
30	- 4 7
31.	
32	6 9
Minutes of Music	

STOPSETS

1.		
2. 3.		
۶. 4.		
5.		
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<i>5</i> 0.		

ARTIST PROTECTION

Group I slot(s)	Group II slot(s)	Group III slot(s)
1	51.	101.
2	52	102.
2.	51. 52. 53.	102.
4	54	104.
5.	55.	105.
6	55	106.
6. 7.	57.	107.
8.	57.	108.
	58.	109.
9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21.	59.	110.
11.	60.	111.
12	62.	112.
13	63. 64. 65. 66. 67. 68.	113.
1/4	64.	113. 114. 115. 116.
15	65	115.
16	66	116.
17.	67	117
1/.	69 -	117. 118. 119.
10.	69	119
17.	69. 70. 71. 72.	120
20.	70.	120. 121.
	72	122
22.	72.	122.
23.	13.	123. 124.
24.	74.	125
25.	/>,	125.
26.	76.	126.
27.	// •	127.
27.	70.	120.
29.	./9•	129.
30.	00.	130.
31.	81.	131.
32.	84	132.
33.	83	100.
34.	84	134.
35	85	137
36.	86	127
<i>31</i> •	87.	135. 136. 137. 138. 139.
<i>3</i> 8.	88.	120
J7.	87•	1/10
40.	70	140.
41.	91.	141. 142. 143.
T4.	74.	142.
100	77.	147.
****	94.	144.
	7J.	147.
46.	76	144. 145. 146.
4/.	9/.	1T/ •
40.	70.	140.
47.	99.	149.
50.	99 100	150.

ARTIST PROTECTION

(continued)

Group IV slot(s)	Group V slot(s)
151	201.
151.	
152.	202.
153.	203.
154.	204.
	205.
126.	206.
157.	207.
170.	208.
129.	209.
160.	210.
161.	211.
162.	212.
163.	213.
164.	214.
165.	215.
166.	216.
167.	217.
168	218.
168.	010
169.	000
170.	
171.	221.
172.	222.
1/3.	223.
174.	224.
175.	225.
176.	226.
177.	227.
178	228.
179.	229.
180.	230.
181.	231.
182.	232.
183.	233.
184.	234.
185.	235.
186.	236.
187.	237.
188.	238.
189.	239.
100	240.
101	241.
100	242
100	01.0
194.	21.5
177.	246
170.	01.7
17/.	
178.	248.
199.	249.
200.	250.

SONG PROTECTION I

			07
1.	33.	65	97.
2.	34.	66.	98.
3.		67.	99.
	2/	68.	100.
	^-	69.	101.
		69. 70.	101.
_		71.	103.
		72.	104.
0	<i>h</i> 1	73	105.
9. -10.	41.	73.	106
10.	42.	74.	106.
11.	43.	75.	100
12.	44.	/6.	100.
13.	45.	//.	109.
14.	46.	/8.	110.
15.	47.	79.	111.
16.	48.	80.	114.
10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21.	49.	81.	112.
18.	49. 50.	81. 82. 83. 84.	114.
19.	51.	83.	117.
20.	52.	84.	116.
21.	53.	85.	117.
21. 22. 23. 24. 25. 26.			118.
23.	54.	87	119.
24.	55.	87.	120.
25.	56.	88.	121
<i>4</i> 3	57.	89.	121.
		90.	122.
27.	59.	91.	123.
	60.	92.	124.
29.	61.	73.	125.
30.	62.	94.	126.
31.	63.	95.	12/.
32.	64.	96.	128.

Slot(s)

SONG PROTECTION I (Continued)

129.	161.	193.	225.
130.	162.	194.	226. 227. 228. 229. 230. 231. 232. 233.
131.	163.	195.	227.
132.	164	196.	228.
133.	165.	197.	229.
134.	166.	198.	230.
135.	167	199.	231.
136.	168.	202.	232.
137.	169.	201.	232. 233. 234. 235. 236.
138.	170	202	234.
139.	171.	203.	235.
140	172	204	236.
141		205	227
142	174.	206.	238.
143	175.	207.	235. 236. 237. 238. 239. 240. 241.
144	176	208	239. 240. 241. 242. 243. 244. 245.
1/15	177	209	241.
145.	178	210.	242.
1/17	179	211.	243.
147.	180	212.	243. 244. 245. 246. 247. 248.
149.	181	213.	245.
150.	182	214.	246.
151.	182. 183.	215.	247.
152.	184	216.	248.
153.	184. 185. 186.	216.	248. 249. 250. 251.
154.	186	218	250.
155.	187	219.	251.
156.	188	220.	
157.	186. 187. 188. 189. 190. 191. 192.	221.	250. 251. 252. 253. 254. 255.
158.	190.	222.	254.
159.	191	223.	255.
160.	192.	224.	

SONG PROTECTION II

	•			
1.	33.	65.	97.	
2.	34.		98.	-
3.	35.	67.	77.	
4.		68.	100.	
5.	36. 37.	69.	101.	
6.	38.		102.	
. 7 .		71.	103.	
8.		72.	104.	
9.	//1	73.	105.	
10.	112		106.	
1.1	42.	75.	107.	
12.		76.	108.	
13.	44.		109.	
14.		78.	110.	
15.	46.	79	111.	
16.	47.	79.	112.	
17.	48.	80.	113.	
		81.	114	
18. 19.			114.	
20.		83.	115.	
		84.	117.	
21.	53.	85.	118	
22.	54.	86.	118.	
23.	54. 55. 56.		119.	
24.		88.	120.	
25.	57.	89.	121.	
26.	58.	90.	122.	
27.		91.	123.	
28.	60.	16.	144.	
29.	61.	72.	167.	
30.	62.	74.	120.	-
31.	63.	7).	12/ •	
32	64	96.	128.	

___ Slot(s)

SONG PROTECTION II (Continued)

. 120	161.	193.	225.	
129.	162.	194	225. 226. 227. 228. 229. 230.	
130.	162.	195	227	300
131.	163. 164.			
132.	164.	176.	229.	
_133.	165.	197	227.	
134.	166.	198	229. 230. 231. 232. 233. 234. 235. 236. 237.	
135.	167.	199.	231	
136.	168.	202.	232	-
137.	169.	201.	233.	
138.	170.	202.	234.	
139.	171.	203.	235.	
140.	172.	204.	236	
141.	173.	205.	237.	
142.	174.	206.	236. 237. 238.	
143	175.	207.	239.	
144.	176.	208.	240.	
145.	176. 177.	209.	238. 239. 240. 241. 242. 243. 244.	
146.	178.	210.	242. 243. 244. 245. 246.	
147.	179.	211.	243.	
148.	180.	212.	244.	
149.	181	213.	245. 246. 247. 248. 249. 250.	
150.	182.	214.	246.	
151.	183.	215.	247.	
152.	184	216.	248.	
153.	184.	217.	249. 250.	
154.	186.	218-	250.	
	187.	217. 218. 219.	250. 251. 252. 253.	
	187.	220	252.	
156. 157.	188.	221	253.	
150	189.	44.		
158.	190.	222.	255.	
160.	192.	224.	4,7,0	
I DU -	176.	447.		

CATEGORY PLOTTING ORDER & SEARCH DEPTH

Plotting Order	Category	Depth (Cat/Pok)
1		
used		

*** AutoSelect Forms ***

ADDITIVE VALUES GRID

CIOCK #		
Clock Name		
		Min/Max per Checkpoint
<u>.</u>	-	
2		
4. <u> </u>		

CONDITIONAL RESTRICTION GRID

Date Entered:	//
Clocks Used:	

То ___:___

From ___:___

	1	2	3_	4	5	6	7	8
1								
2								
3								
4								
5								
6					,			
7	,							
8					- · ·			