SDRSliceLabel

(Version 1.2.0 -- Revised: June 10, 2022)

Users Guide

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INTRODUCTION

SDRSliceLabel is a small utility for use with FLEX-6000 series radios running *SmartSDR™*. Its displays a custom label for each open slice, providing functionality similar to the BandText data feature in *PowerSDR™*.

SDRSliceLabel communicates directly with the radio over the local network using the **FlexLib™** API.

SYSTEM REQUIREMENTS

SDRSliceLabel requires Windows Vista or later. It is a 32-bit application, and therefore will run on a computer with either a 32-bit or a 64-bit processor.

Adobe Acrobat Reader® or a similar program capable of displaying .pdf files is required to view the program documentation.

INSTALLATION

Run the installation package file, *SDRSliceLabelSetup.exe*. This will install *SDRSliceLabel.exe* and all required supporting files on your computer. The installer will suggest a default location for the program file. You may change the location or leave it at the default, it does not matter.

PROGRAM OPERATION

When the program starts, the window shown in Figure 1 will be displayed. This window will contain a list of available FLEX-6000 series radios for you to choose from. Connect to the desired radio by double-clicking on it in the list or by clicking on it and then clicking on the "Connect" button. If you click on the "Cancel" button, the program will close.
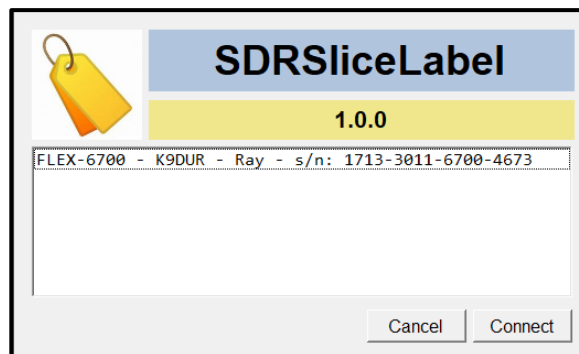

Figure 1 -- Radio Connection Window

If you have *Autoconnect* selected, the Radio Connection Window will not be displayed and the program will automatically connect to the first radio it discovers. If no radio is found after 15 seconds, the program will close with an error message.

MAIN DISPLAY

After you have connected to the radio, the main window, shown in Figure 2, will be displayed.

A	80m SSB	B	80m SSB	C	80m SSB	D	80m SSB
E	80m SSB	F	80m SSB	G	80m SSB	H	80m SSB

Figure 2 - Main Window

The number of slices displayed is equal to the number of slices open in SmartSDR. For example, Figure 3 shows what would be displayed if you have 2 slices open.

A	80m SSB	B	40m CW

Figure 3 - Main Window (2 Slices)

Right-clicking on the window will display a pop-up menu which will allow you to change the program settings, edit the custom labels, or exit the program.

OPERATION

When you change the frequency or mode of a slice, ***SDRSliceLabel*** will display a custom label appropriate for that frequency and mode. The text of the label, the color of the text, and the color of the text background are fully customizable.

As you open or close slices, the display automatically changes accordingly.

The letter of the current transmit slice is displayed with a gold background. Otherwise, the background will be gray.

SETTING THE DISPLAY POSITION

To position the display on the screen, place the cursor over the display and press the left mouse button. Drag the display to the desired position and release the mouse button.

If *Anchor to SmartSDR* is selected and you drag the display to a position within the ***SmartSDR*** window, then the ***SDRSliceLabel*** display will be anchored to the ***SmartSDR*** display position. That is, if you move or re-size the ***SmartSDR*** window, the ***SDRSliceLabel*** display will move accordingly, always keeping the same position relative to the ***SmartSDR*** window.

If you drag the display to any position that is not totally inside the borders of the ***SmartSDR*** window, then the ***SDRSliceLabel*** display will be fixed at that position on the screen.

CLOSING THE PROGRAM

To close the program, you can either:

- Right-click on the main display and click on "Close SDRSliceLabel" on the pop-up menu, or
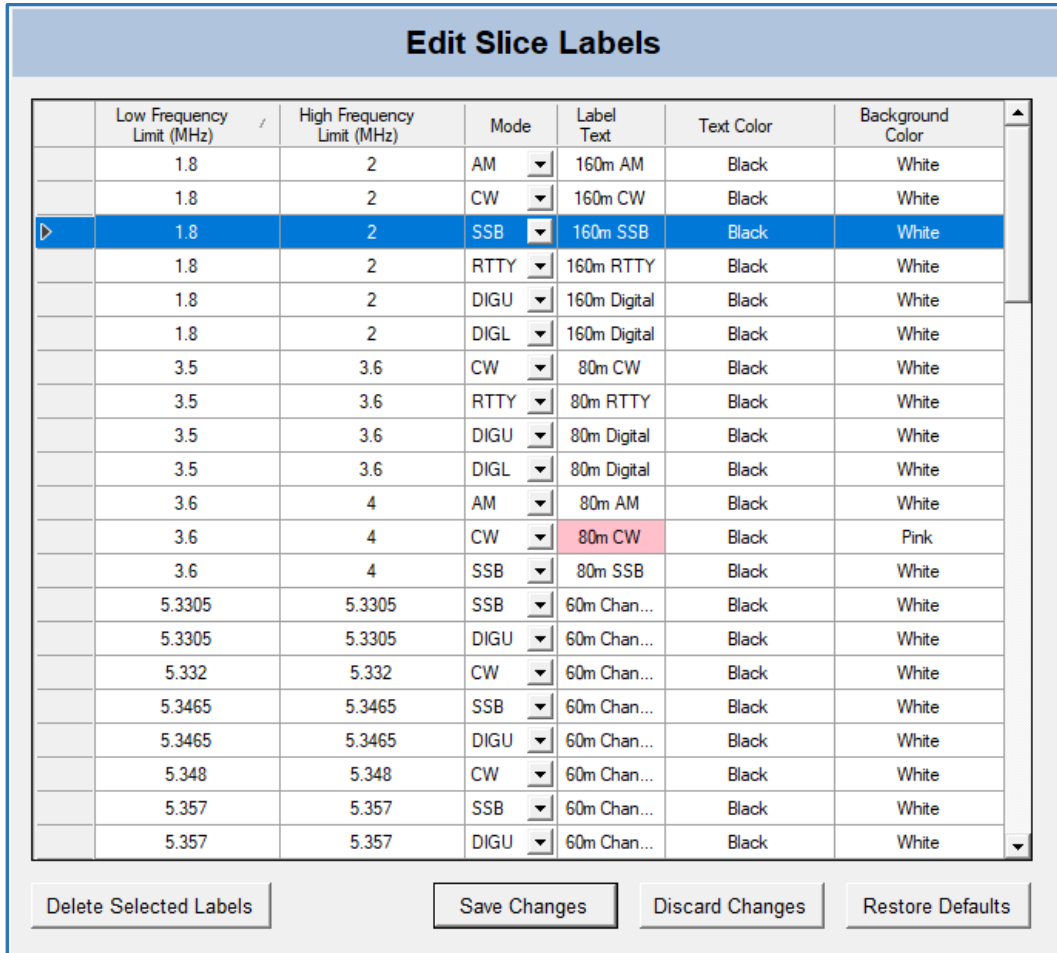- Right-click on the system tray icon & click on "Close SDRSliceLabel".

POP-UP MENU

Right-clicking on the **SDRSliceLabel** window will display a menu with the following items:

- **Always On Top** -- Toggles whether the main window will always be displayed on top of all other applications. If off, the main window will be displayed on top of the *SmartSDR* window.
- **Autoconnect** -- Toggles whether the program will automatically connect to the first radio found. Also, the program will continue running when the connection to the radio is lost & will automatically re-connect to the radio when the radio is found again.
- **Anchor to SmartSDR** -- Toggles the option to anchor the *SDRSliceLabel* display position to the *SmartSDR* display position.
- **Edit Labels** – Opens a dialog which will allow you to edit the list of custom labels.
- **Display Documentation** -- Displays the program documentation (this document).
- **About SDRSliceLabel** -- Displays basic information about the program.
- **Close SDRSliceLabel** -- Closes the program.

Selecting *Edit Labels* from the pop-up menu will display the form shown in Figure 4.

Edit Slice Labels

	Low Frequency Limit (MHz)	High Frequency Limit (MHz)	Mode	Label Text	Text Color	Background Color
	1.8	2	AM ▼	160m AM	Black	White
	1.8	2	CW ▼	160m CW	Black	White
▷	1.8	2	SSB ▼	160m SSB	Black	White
	1.8	2	RTTY ▼	160m RTTY	Black	White
	1.8	2	DIGU ▼	160m Digital	Black	White
	1.8	2	DIGL ▼	160m Digital	Black	White
	3.5	3.6	CW ▼	80m CW	Black	White
	3.5	3.6	RTTY ▼	80m RTTY	Black	White
	3.5	3.6	DIGU ▼	80m Digital	Black	White
	3.5	3.6	DIGL ▼	80m Digital	Black	White
	3.6	4	AM ▼	80m AM	Black	White
	3.6	4	CW ▼	80m CW	Black	Pink
	3.6	4	SSB ▼	80m SSB	Black	White
	5.3305	5.3305	SSB ▼	60m Chan...	Black	White
	5.3305	5.3305	DIGU ▼	60m Chan...	Black	White
	5.332	5.332	CW ▼	60m Chan...	Black	White
	5.3465	5.3465	SSB ▼	60m Chan...	Black	White
	5.3465	5.3465	DIGU ▼	60m Chan...	Black	White
	5.348	5.348	CW ▼	60m Chan...	Black	White
	5.357	5.357	SSB ▼	60m Chan...	Black	White
	5.357	5.357	DIGU ▼	60m Chan...	Black	White

Delete Selected Labels   Save Changes   Discard Changes   Restore Defaults

Figure 4 – Edit Labels Window

A sample list of slice labels is included as a starting point and as an example of how to set up your own custom labels. Clicking on the button labeled :Restore Defaults" will reset your labels to this original set of labels.

Each label specifies a frequency range and an operating mode. If the slice frequency is within the specified frequency range and is set to the specified mode, then that label will be displayed. If there are two or more labels with the same mode and the same or overlapping frequency ranges, the label with the narrowest frequency range will be displayed.

If there are no labels defined that include the slice frequency and mode, then the message Out of Band will be displayed for that slice.

There are six values associated with each label:

1. **Low Frequency Limit (MHz)** – The lowest frequency, in megahertz, for which the label will be displayed.
2. **High Frequency Limit (MHz)** – The highest frequency, in megahertz, for which the label will be displayed.
3. **Operating Mode** – The operating mode for which the label will be displayed.
4. **Label Text** – The text to be displayed on the label.
5. **Text Color** – The color of the label text. The default color is black.
6. **Background Color** – The color of the label text background. The default color is white.

To modify an existing label, type in the new values for the *Low Frequency Limit*, *High Frequency Limit*, and *Label Tex*t, select the *Mode*, and click on the *Text Color* and *Background Color* boxes to select the desired color.

To add a new label, go to the blank row at the bottom of the list and type in the values for the *Low Frequency Limit*, *High Frequency Limit*, and *Label Tex*t, select the *Mode*, and click on the *Text Color* and *Background Color* boxes to select the desired color.

To delete a label, select the label you wish to delete by clicking on the gray box to the left of the label. A button labeled "Delete Selected Labels" will be displayed at the bottom of the form. Click on this button to delete the selected label. You may select multiple labels for deletion by holding the *Ctrl* key down while you click on the desired labels.

The label data is stored in a comma-delimited (.csv) file:

C:\Users\<your user name>\AppData\Roaming\K9DUR Software\SDRSliceLabel\SDRSliceLabel.csv

Although not recommended, the file can be edited manually with a spreadsheet program such as Microsoft Excel. If you do decide to edit the file manually, the *Text Color* and *Background Color* values **MUST** match the name of one of the named Windows colors as shown in Figure 5.

SLICE LABEL FREQUENCY RANGES

You can have one frequency range contained within another. For example, you may have the following label set up:

Low Frequency Limit	High Frequency Limit	Mode	Label Text	Text Color	Background Color
14.000	14.150	DIGU	20m Digital	Black	White

but would like to use a different label if tuned to a specific frequency or frequency range within the range of 14.000 MHz to 14.150 MHz. For example, the normal frequency for FT8 is 14.074 MHz. You can add a label to tell you that you are tuned to the FT8 frequency by adding the following label:

Low Frequency Limit	High Frequency Limit	Mode	Label Text	Text Color	Background Color
14.074	14.074	DIGU	20m FT8	Black	White

Name	Hex	Name	Hex	Name	Hex	Name	Hex
AliceBlue	#FFF0F8FF	DarkTurquoise	#FF00CED1	LightSeaGreen	#FF20B2AA	PapayaWhip	#FFFFEFD5
AntiqueWhite	#FFFAEBD7	DarkViolet	#FF9400D3	LightSkyBlue	#FF87CEFA	PeachPuff	#FFFFDAB9
Aqua	#FF00FFFF	DeepPink	#FFFF1493	LightSlateGray	#FF778899	Peru	#FFCD853F
Aquamarine	#FF7FFFD4	DeepSkyBlue	#FF00BFFF	LightSteelBlue	#FFB0C4DE	Pink	#FFFFC0CB
Azure	#FFF0FFFF	DimGray	#FF696969	LightYellow	#FFFFFFE0	Plum	#FFDDA0DD
Beige	#FFF5F5DC	DodgerBlue	#FF1E90FF	Lime	#FF00FF00	PowderBlue	#FFB0E0E6
Bisque	#FFFFE4C4	Firebrick	#FFB22222	LimeGreen	#FF32CD32	Purple	#FF800080
Black	#FF000000	FloralWhite	#FFFFFAF0	Linen	#FFFAF0E6	Red	#FFFF0000
BlanchedAlmond	#FFFFEBCD	ForestGreen	#FF228B22	Magenta	#FFFF00FF	RosyBrown	#FFBC8F8F
Blue	#FF0000FF	Fuchsia	#FFFF00FF	Maroon	#FF800000	RoyalBlue	#FF4169E1
BlueViolet	#FF8A2BE2	Gainsboro	#FFDCDCDC	MediumAquamarine	#FF66CDAA	SaddleBrown	#FF8B4513
Brown	#FFA52A2A	GhostWhite	#FFF8F8FF	MediumBlue	#FF0000CD	Salmon	#FFFA8072
BurlyWood	#FFDEB887	Gold	#FFFFD700	MediumOrchid	#FFBA55D3	SandyBrown	#FFF4A460
CadetBlue	#FF5F9EA0	Goldenrod	#FFDAA520	MediumPurple	#FF9370DB	SeaGreen	#FF2E8B57
Chartreuse	#FF7FFF00	Gray	#FF808080	MediumSeaGreen	#FF3CB371	SeaShell	#FFFFF5EE
Chocolate	#FFD2691E	Green	#FF008000	MediumSlateBlue	#FF7B68EE	Sienna	#FFA0522D
Coral	#FFFF7F50	GreenYellow	#FFADFF2F	MediumSpringGreen	#FF00FA9A	Silver	#FFC0C0C0
CornflowerBlue	#FF6495ED	Honeydew	#FFF0FFF0	MediumTurquoise	#FF48D1CC	SkyBlue	#FF87CEEB
Cornsilk	#FFFFF8DC	HotPink	#FFFF69B4	MediumVioletRed	#FFC71585	SlateBlue	#FF6A5ACD
Crimson	#FFDC143C	IndianRed	#FFCD5C5C	MidnightBlue	#FF191970	SlateGray	#FF708090
Cyan	#FF00FFFF	Indigo	#FF4B0082	MintCream	#FFF5FFFA	Snow	#FFFFFAFA
DarkBlue	#FF00008B	Ivory	#FFFFFFF0	MistyRose	#FFFFE4E1	SpringGreen	#FF00FF7F
DarkCyan	#FF008B8B	Khaki	#FFF0E68C	Moccasin	#FFFFE4B5	SteelBlue	#FF4682B4
DarkGoldenrod	#FFB8860B	Lavender	#FFE6E6FA	NavajoWhite	#FFFFDEAD	Tan	#FFD2B48C
DarkGray	#FFA9A9A9	LavenderBlush	#FFFFF0F5	Navy	#FF000080	Teal	#FF008080
DarkGreen	#FF006400	LawnGreen	#FF7CFC00	OldLace	#FFFDF5E6	Thistle	#FFD8BFD8
DarkKhaki	#FFBDB76B	LemonChiffon	#FFFFFACD	Olive	#FF808000	Tomato	#FFFF6347
DarkMagenta	#FF8B008B	LightBlue	#FFADD8E6	OliveDrab	#FF6B8E23	Transparent	#00FFFFFF
DarkOliveGreen	#FF556B2F	LightCoral	#FFF08080	Orange	#FFFFA500	Turquoise	#FF40E0D0
DarkOrange	#FFFF8C00	LightCyan	#FFE0FFFF	OrangeRed	#FFFF4500	Violet	#FFEE82EE
DarkOrchid	#FF9932CC	LightGoldenrodYellow	#FFFAFAD2	Orchid	#FFDA70D6	Wheat	#FFF5DEB3
DarkRed	#FF8B0000	LightGray	#FFD3D3D3	PaleGoldenrod	#FFEEE8AA	White	#FFFFFFFF
DarkSalmon	#FFE9967A	LightGreen	#FF90EE90	PaleGreen	#FF98FB98	WhiteSmoke	#FFF5F5F5
DarkSeaGreen	#FF8FBC8F	LightPink	#FFFFB6C1	PaleTurquoise	#FFAFEEEE	Yellow	#FFFFFF00
DarkSlateBlue	#FF483D8B	LightSalmon	#FFFFA07A	PaleVioletRed	#FFDB7093	YellowGreen	#FF9ACD32
DarkSlateGray	#FF2F4F4F						

Figure 5 – Named Windows Colors

SOFTWARE LICENSE AGREEMENT

The installation and use of *SDRSliceLabel* indicates your agreement to adhere to the terms listed below:

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ABOUT THE AUTHOR

SDRSliceLabel was written by Ray Andrews, K9DUR.

Ray holds an Amateur Extra class license and was first licensed as a Novice with the call sign WV2MBR in April 1960. He currently resides in West Terre Haute, IN, and is a retired electronic design engineer and software developer.

For more information, visit Ray's web page:

http://k9dur.us

REVISION HISTORY

v1.2.0 – Jun 08, 2022 – Added ability to define labels within the frequency limits of other labels.

v1.1.0 – Mar 12, 2022 – Changed GUID.

v1.0.3 – Nov 19, 2020 – Added ability to move Edit Labels window.

v1.0.2 – Nov 19, 2020 – Fixed bug introduced in v1.0.1 causing LSB & USB modes to always display "Out of Band".

v1.0.1 – Nov 18, 2020 – Fixed bug causing RTTY, DIGU, & DIGL modes to always display "Out of Band".

v1.0.0 – Nov 14, 2020 -- Initial Release.