



Programming Steps • Installation Notes • Integration Tips

Understanding Text Tags in APEX

Similar to control variables, text tags report text-based feedback on two-way drivers, room proxy, and internal variables in the programming software.

Let's examine how control variables are used so we can see some of the advantages to using text tags vs. inserting a control variable.

Suppose you wanted to create a text box that displays the current input of the surround receiver you are listening to. First, you would create a text box; then you would right click and select "Edit Text."



You would then select the option to "Insert Control Variable." A list of drivers, flags, and internal variables will display.

Edit Button Te	xt				- 9 .	×	<u>.</u>
Arial	~ 10	~ B Z	Ū∣≣	≣ ≣ ₹			Movies
						Insert Co	ontrol Variable

Select the driver, category, and variable that you want to reflect the feedback on. In this case, we want to display the current input of the receiver.

	× ♦•				
	Clock	•			
	TCP/IP	+			
	Room Proxy	+	Main	•	
	RTIQ	+	Sources	•	
	Yamaha AVENTAGE	•	Sound Programs/DSP	→	Input
	XP Macro Flags	+	Party Mode	→	Sirius
	Local Macro Flags	+	HDRadio	→	Tuner
	Internal Variables	+	Tuner	•	Multi Chan
		Sirius	•	Phono	
		iPod		AV1	
		iPod (USB)	+	AV2	
		AirPlay	+	AV3	
Home		Spotify -	•	AV4	

Once selected, a placeholder will display in the text box, allowing you visual confirmation of what the feedback will look like. You can adjust font, color, and size to make it look as desired.

Since you are inserting a control variable, you will see the var designation in brackets.



You may change the way the feedback is displayed in most cases by clicking on the {var} in brackets. Under the string index section, you will see a display of the list of values that will be received from the receiver, and how the feedback will be reported. Edit Variable \times Variable: Input (Yamaha AVENTAGE\Sources) O Integer (Whole Number) Fixed-Point Number Divisor: 10 Format: 1.4 Fixed-Width Integer (with leading zeros if necessary) Format: 001 (at least three digits) String Index Value ^ String 0 Sirius 1 Tuner 2 Multi Chan 3 Phono 4 AV1 5 AV2 6 AV3 v Add String Delete String ОK Cancel Remove Variable

You can easily change the values under "string" to something more user-friendly for the client. Changing "AV1" to "Cable TV" allows the client to understand the variable data better.

One drawback of this approach is that control variable text boxes need to be copied around the interface for them to retain the functionality and custom mapping that was created by the programmer. Furthermore, if you have other controllers that you want to display the feedback on different types of text boxes, you need to recreate your work. Text tags eliminate the need to do this.



Text tags allow you to assign a tag to the text variable and carry the value on the same levels available to macro and variables. These tags assigned to text variables are known as "text tags." Text tags are no different than normal tag names in that they follow the same logical naming conventions.

We will create a text tag with a standard tag name.

In this example, we will track the same input variable on the receiver, but instead of inserting a control variable, we will use text tags.

Repeat the process by selecting the text button, and right-clicking and selecting "Edit Text." Instead of inserting a control variable, select the white tag icon directly to the left which will allow you to insert a text tag.

Once the button is selected, you need to enter a tag name. You may use a standard tag name, or you can enter a custom tag name. A full glossary of RTI tags is available that contains all the standard RTI tags categorized by type.

📧 Edit Butt	ton Text			×
Arial	~ 12	→ B Z <u>U</u>	E E I E	E = 🔍 🔷 - M -
				Insert Tag

Arial	✓ 12 ✓ B Z U ≡	┋┋ ВВ⊒ ⊂ ◈•
	Edit Tag	×
	Select or enter a tag:	~
	ОК	Cancel

Since we are tracking the input on the receiver, we can enter that standard "Input" tag that can be found in RTI's standard tag glossary under "Input Selection." An excerpt from the tag glossary can be seen below:

Input Selection				
	Тад	Description		
	Input	Input returned or set as an integer		
	•	4 D a g a		

APEX will insert a placeholder with the word tag in brackets. Clicking on that tag will display the name of the text tag you assigned.

Now that a text tag has been assigned, a variable and level must be assigned. On the bottom left of the screen, there is an option to the right of the macro and variable level toolbar "text tag."





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With the text box selected, click on the text tags right arrow and the name of the designated text tag will appear. Selecting the right arrow to the right of the tag name will show the 4 different variable levels you can choose depending on how far you want the text tag functionality to reach in the software. In the case of the input, it probably makes the most sense to be on a room level, so the text tag can be used on all controllers and sources in that room.



Set the input variable and make any changes to the string index mapping by clicking on the "edit" menu.

Text: Reversed: Inactive: Visible: Value

napping by clicking on the "edit" menu.	Variable: Input (Yamaha AVENTAGE\Sources)
	O Integer (Whole Number)
	O Fixed-Point Number
	Divisor: 10 V Format: 1.4 V
	O Fixed-Width Integer (with leading zeros if necessary)
	Format: 001 (at least three digits)
	String Index
	Value String
	0 Sirius
Input (Yamaha AVENTAGE\Sources)	1 Tuner
X	2 Multi Chan
	3 Phono
X	4 Blu-Ray Player
X	5 Cable Box
	6 AV3 🗸
	Add String Delete String
	OK Cancel Remove Variable

Edit Variable

Once you are finished, select the "Ok" button to exit. Your text tag "Input" has now been assigned a room level variable, and anywhere you insert that text tag with the input name, it will carry the functionality to all sources and controllers in that room, which does not require the programmer to insert and define control variables.

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Using text tags improves efficiency and saves time, especially when programming larger projects with several controllers. Text tags allow the programmer to assign a tag to a variable, available at any level they choose. Instead of having to assign control variables in several places which require drilling down to the driver arguments, the user can simply tag the text-based feedback, and the functionality will follow. It also allows multiple text-based variables to be changed in multiple locations by simply applying the change in one location. If you are using different mapping, as in the input example provided, the mapping and programming the variable only needs to be done once.

Weather Climate **Music Streamer** Indoor Temp Fan Status inneapolis, MN 68.0° Outdoor Temp Setpoint 68° 58.0° Is Like 70° ly Cloudy this Mode Adjust sure: 30.00 inches Humidity: 60% Player 1 Song eady) Devpoint: 40° Wind: Variable at 10 mph Off Auto Rayer 1 Artist Player 1 Album Cool Heat Player 1 Station Fan Control Shuffle Repeat Auto On Cycle Security Lights Security

Here are some user advantages that take advantage of using text tags for text-based feedback:

In the above examples, text tags make it easier to make changes on multiple controllers without having to reinsert control variables with new values. They also ensure that these values are auto-programmed on multiple controllers at the source level but can be changed by the programmer if desired.

If you have any questions on text tags and how to use them in your projects, contact the Dealer Experience team at RTI.