# **Technical Brief**

# Codonics SLS Administration Tool Localization Enhancements

# **Overview**

Version 1.4.0 or newer software for Codonics Safe Label System<sup>TM</sup> (SLS) Administration Tool (AT) includes enhancements to the localization functionality:

- Label template packs can be loaded and managed to support local requirements for label sizes and formats
- Large and small format label templates are now available
- Barcode parsing rules can be created to support local barcode encoding formats

**NOTE:** This Technical Brief includes the user interface updates that are provided in Version 1.5.0 or newer software.

# Label Template Management

# **Label Template Packs**

Label template management is based on the use of Label Template Packs, which are Zip files that contain a complete set of templates as well as the information required for the template pack to be installed and operated in the AT.

The drug classification templates in a template pack have the same size and are used to address the label requirements for a locale.

Label template packs are only developed and released by Codonics.

### Label Template Pack Zip File Naming Convention

Label template pack Zip files use the following naming convention:

- A region identifier. This will typically be a country code (for example, JP for Japan), but can also be other codes such as STD (for the SLS standard template pack based on the ASTM 4774 standard) and DIVI (for German DIVI templates).
- A unique identifier for packs in the same region (for example, -1 or -2).
- A version number (for example, v01).

Examples of template pack names are:

- STD-1-v01.zip, for the standard SLS pack 1, version 1
- JP-L1-v01.zip, for Japanese large format pack 1, version 1

# **Installing a Label Template Pack**

To install a template pack:

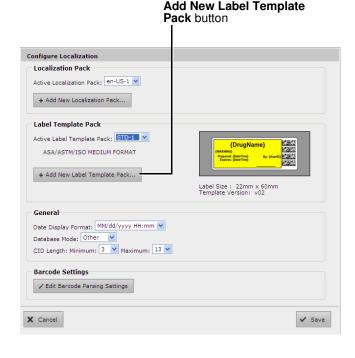
1. Click the Configure Locale button at the bottom left corner of the Formulary tab.

Master 76		🖌 Import	+ Add New	Learn	Druga 🛄 V	Ferify Druga	n Undo	٩	Search by drug n	ame, etc.
SLS SLS Formulary 76	E	Drug Name 🗢	Master ID	Container ID	Talman	Concentration	Route	Verification	Status	Actions
	п	Atropine	00517040125	0517040125		0.4 mg/mL		Not Verified	ACTIVE	
	п	Atropine		1001925039		0.4 mg/mL		Not Verified	ACTIVE	
		Bupivacaine-Epinepi	00409904201	0409904201	Bupivacaine-EP	0.25 % 1:200		Not Verified	ACTIVE	
	п	Bupivacaine-Epinepi	00409904501	0409904501	Bupivacaine-EP	1 % 1:200,00	Injectable	Not Verified	ACTIVE	
	п	Cefazolin		6050507495	ce#AZolin	19		Verified X	ACTIVE	
	п	Cefazolin		0781945170	osFAZolin	19		Not Verified	ACTIVE	
	п	Cisatracurium		0074437805		2 mg/mL		Verified X	ACTIVE	
	п	Clindamycin		0409405001		150 mg/mL		Verified X	ACTIVE	
	п	Dexamethasone	00517490125	0517490125		4 mg/mL		Not Verified	ACTIVE	
	п	Dexamethasone	63323016505	6332316505		4 mg/mL		Not Verified	ACTIVE	
	С	Dexmedetomidine		0409163802		100 mcg/mL	Injectable	Verified X	ACTIVE	
	п	Diphenhydramine		0641037621	diphenhydrAMI	50 mg/mL		Not Verified	ACTIVE	
e: en-US-1	Г	Ephedrine		1747851500	ePHEDrine	50 mg/mL		Verified X	ACTIVE	

# Configure Locale button

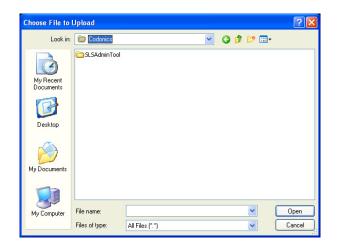
The Configure Localization dialog box displays.

2. Click the Add New Label Template Pack button.





The Choose File to Upload dialog box displays.



3. Navigate to and select the Label Template Pack file to be added and click the **Open** button.

The template pack is imported into the AT. When the import process is complete, it will be included for selection in the Active Label Template Pack list in the Configure Localization dialog box.

# Selecting the Active Label Template Pack for a Formulary

You can select which Label Template Pack to use for the formulary. When you create the formulary update package, the label templates from the active template pack will be included in the package for deployment to SLS 500i<sup>TM</sup> devices.

To select the active Label Template Pack:

1. Click the Configure Locale button at the bottom left corner of the Formulary tab.

The Configure Localization dialog box displays.

2. In the Active Label Template Pack list, select the template pack.

Pa	ack list
Configure Localization	
Localization Pack Active Localization Pack: en-US-1	
+ Add New Localization Pack	
Label Template Pack	
Active Label Template Pack: STD-1	{DrugName}
ASA/ASTM/ISO MEDIUM FORMAT	(MARING) Preparet: (DateTime) Expires: (DateTime) By: (UserD)
+ Add New Label Template Pack	
	Label Size : 22mm x 60mm Template Version: v02
General	
Date Display Format: MM/dd/yyyy HH:mm 💟	
Database Mode: Other	
CID Length: Minimum: 3 💌 Maximum: 13 💌	
Barcode Settings	
✓ Edit Barcode Parsing Settings	
× Cancel	✓ Save

**Active Label Template** 

The sample label template image in the dialog box updates to reflect the selected template pack.

Configure Localization	
Localization Pack	
Active Localization Pack: en-US-1 💌	
+ Add New Localization Pack	
Label Template Pack	
Active Label Template Pack: JP-L1 💙	
ASA/ASTM/ISO MEDIUM FORMAT	(DrugName)
+ Add New Label Template Pack	Expires: (DateTime) By: (UserID)
	Label Size : 30mm x 80mm Template Version: v01
General	
Date Display Format: MM/dd/yyyy HH:mm 💙	
Database Mode: Other	
CID Length: Minimum: 3 💙 Maximum: 13 💙	
Barcode Settings	
Edit Barcode Parsing Settings	
X Cancel	✓ Save

3. Click the Save button to save your selection.



# **Currently Available Label Template Packs**

Version 1.5.0 software includes the following Label Template Packs:

- STD-1, the standard label (22 x 60 mm) format template pack that is based on the ASTM 4774 standard
- STD-2, the standard label (22 x 60 mm) format template pack with support for Total Dose/Total Volume, Auxiliary Barcode, and patient write-in
- STD-L1, the large label (30 x 80 mm) format template pack in English
- STD-S1, the small label (17 x 48 mm) format template pack in English
- JP-L1, the large label (30 x 80 mm) format template pack for Japan
- JP-S1, the small label (17 x 48 mm) format template pack for Japan

# Large and Small Format Labels

Version 1.4.0 and newer software included two new sets of syringe label templates: a large and a small format.

For examples of the medium format syringe label templates that are available with previous software releases, refer to the SLS Administration Tool User's Manual.

**NOTE:** The template pack is selected for each formulary. Create a formulary package and deploy the formulary package to SLS devices. For information about creating and deploying formulary packages, refer to the SLS Administration Tool User's Manual.

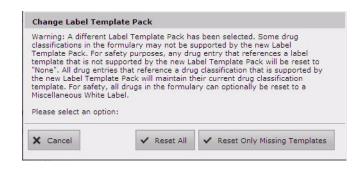
**NOTE:** Make sure that the correct size labels are loaded on 500i for the template pack selected. If the wrong label size is installed (for example, a large template was selected but small labels are installed, ink will overspray in 500i).

# Creating Separate Formularies with Large and Small Label Formats

To create separate formularies that include the same drugs but use large and small labels:

1. In the Configure Localization dialog box, select the large label format as the active Label Template Pack.

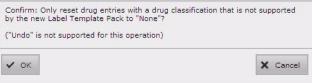
When changing the active Label Template Pack, the following warning message displays. It explains that some drug classifications in the formulary might not be supported by the selected Label Template Pack. You have the option of resetting the drug classification for those drugs to **None**, or resetting the drug classifications for all drugs in the formulary to Miscellaneous White Label.



**NOTE:** This message is displayed whether there are drugs in the formulary or not.

- 2. Select the appropriate reset option:
  - a. To reset the drug classification for all drugs in the formulary to Miscellaneous White Label, click the **Reset All** button.
  - b. To reset the drug classification to None for only those drugs in the formulary whose classifications are not supported by the selected Label Template Pack, click the Reset Only Missing Templates button. If you click this button, you are prompted to confirm this selection.

#### Change Label Template Pack



Click the OK button to confirm the selection of this option.

- 3. Review the drug classifications that were changed based on the chosen reset option and set them as appropriate for the Label Template Pack that you selected.
- 4. Create the formulary package that will use the large label format.

**NOTE:** You can assign a name to the formulary package that indicates what label format was specified for it.

- 5. Close the AT.
- 6. Make a copy of the AdminTool-Data directory and rename it (for example, AdminTool-Data-Small-Label).

**NOTE:** You create unique formularies when using different label sizes because it is common for the set of drugs that will use small labels to be different than the set of drugs that will use large labels.



- 7. Restart the AT.
- 8. During startup, when you are prompted to locate the data directory, select the directory copy that you made and renamed (for example, AdminTool-Data-Small-Label).
- 9. In the Configure Localization dialog box, select the small label format as the active Label Template Pack.
- 10. Repeat steps 2 and 3 above to select a reset option and review the drug classifications that were changed.
- 11. Create the formulary package that will use the small label format.

# Large and Small Format Label Examples

Examples of the large and small format syringe label templates are shown below.

**NOTE:** The syringe label properties of the drug classification templates, such as background color, primary stripe color, and label pattern, are the same for all label formats, regardless of the format size. For a list of sample labels for each of the label templates, refer to the SLS Administration Tool User's Manual.

Large Format Syri	nge Label Examples
Miscellaneous White Combination Label	
Combination Label	Bupivacaine-Epinephrine 0.5% 1:200,000 Expires: 09/01/2012 15:53 By: DEMO
Heparin	
	Heparin 10,000 Units Expires: 09/01/2012 15:53 By: DEMO
Narcotic Antagonists	
	20 mg/50 mL         0.4 mg/mL           Expires: 09/01/2012 17:45         By: DEMO
Narcotics	
	Morphine         X           20 mg/50 mL         0.4 mg/mL           Expires:         09/01/2012 17:43
Succinylcholine	
	Succinylcholine         Image: Composition of the second seco

Small Format Syri	nge Label Examples
Anticholinergic Agents	Atropine 0.4 mg/mL Expires: 0801/2012 16:45
Epinephrine	Epinephrine
Hypotensive Agents	Nitroglycerin 200 mcg/mL Expine: 0006/2012 12:48 Normal Saline
Narcotic Tranquilizer Combinations	Meperidine-Promethazine 25 mg/ml. 25 mg/ml. Expines: 59/01/2012 16:04
Protamine	Protamine 0.4 mg/mL Expires: 05010012 1734

# **Barcode Parsing Rules**

The Barcode Parsing Rule function allows you to create parsing rules to support barcode encoding formats that are not included in the standard release of the software. A barcode parsing rule specifies which characters in the barcode constitute the Container ID.

# **Creating a Barcode Parsing Rule**

Before attempting to create a barcode parsing rule, obtain the information about the encoding format for the barcode that you want to use. To simplify the rule creation process, you should also have a sample barcode with the proper encoding format to scan.

**CAUTION:** Until you are thoroughly familiar with entering barcode parsing rules, only perform the following procedure under the direction of Codonics Technical Support.

To create a barcode parsing rule for a barcode encoding format:

1. Click the Configure Locale button at the bottom left corner of the Formulary tab.

The Configure Localization dialog box displays.

2. Click the Edit Barcode Parsing Settings button.



Configure Localization	
Localization Pack	
Active Localization Pack: en-US-1 🗸	
+ Add New Localization Pack	
Cabel Template Pack	
Active Label Template Pack: STD-1	
ASA/ASTM/ISO MEDIUM FORMAT	(VARINO) Preparent: (Colda Time) Byr (Cond) Expires: (Class Time) Byr (Cond)
+ Add New Label Template Pack	
	Label Size : 22mm x 60mm Template Version: v02
General	
Date Display Format: MM/dd/yyyy HH:mm 💌	
Database Mode: Other 💌	
CID Length: Minimum: 3 💙 Maximum: 13 💙	
Barcode Settings	
✓ Edit Barcode Parsing Settings	
X Cancel	✓ Save
Edit Barcode Parsing Settings	

The Configure Barcode Parsing dialog box displays. Initially, the barcode parsing rules that are included with the standard software are listed. As you create custom rules, they are added to the list.

reset:	ustom	~	+ Add New Rule		
Number	Symbology		Rule	Check Digit	Actions
1	Data Matrix		010#############	No Check Digit	× ×
2	UPC-A, UPC-E, UP	C-E1, EAN-8	=###############	No Check Digit	× ×
3	Data Matrix		#@####	No Check Digit	× ×
4	Data Matrix		####-##-###-@	No Check Digit	<i>i</i> ×
5	Data Matrix		###	No Check Digit	<i>»</i> ×
Test R	ules				

3. Click the Add New Rule button.

	Add New Rule button			
Configure Preset: C	e Barcode Parsing	+ Add New Rule		
Number	Symbology	Rule	Check Digit	Actions
1	Data Matrix	010#############	No Check Digit	X

	_					
The New	Rarcoda	Pareina	Rula	dialog	hov	dieplaye
THEINEW	Darcoue	i aroniy	riule	ulalog	DOX	uispiays.

Data: Match:	1234567890123456789012345           Enter Match Rule           12345678901234567890123456789012345
Match:	
Hatern.	12345678901234567890123456789012345
Transfer:	Enter Transfer Rule
mansier:	12345678901234567890123456789012345
Check Digit Type:	No Check Digit
Container ID Result:	
Symbology:	Select Symbology
Match Rul	e Guide
#:	Match any number character
@:	Match any alphabetical character
?:	Match any character
Other:	Match specific character

4. Enter the parsing rule parameters in the fields and lists.

The rule parameters are described in the following table.

Field	Description
Original Barcode Data	Scan a sample barcode that uses the encoding for which you are creating this parsing rule.
	The code is entered in this field with the symbology characters removed. Also, the symbology that is detected is automatically selected in the Symbology list.
	You can also enter the barcode manually.



<b>Field</b> Match	<b>Description</b> For each character in the code, enter	<b>Field</b> Symbology	<b>Description</b> Enter the barcode symbology that is	
	one of the following to identify the character type:		being used.	
	# A numeric character		If you scanned a sample barcode, the appropriate symbology is	
	@ An alphabetic character		automatically selected by the system.	
	? Any alphanumeric character	5 When you a	re finished entering the parsing rule	
	To specify a <b>literal alphanumeric character</b> , enter that character.	parameters, click the <b>Create</b> button to save the rule.		
	For example:	The rule is saved and added to the list in the Configure Barcode Parsing dialog box. In the Rule column in the Configure Barcode Parsing dialog box, the characters that constitute the Containe ID are displayed in bold type.		
	?2-###-###-@@@@			
	This example has:			
	• A prefix of any character			
	• The literal character 2			
	• Two sections of any three numeric characters	<ol> <li>When you are finished configuring barcode parsings, click the Close button in the Configure Barcode Parsin dialog box.</li> <li>The Configure Localization dialog box displays.</li> </ol>		
	<ul> <li>One section of any four alpha characters</li> </ul>			
	The sections of numeric and alpha characters are separated by hyphens.	The Comgu	re Localization dialog box displays.	
Transfer	This entry serves as a mask to identify the characters in the code that constitute the Container ID. For each character in the code:	NOTE: Your barcode parsing configuration ch saved when you click the Closed button in the Barcode Parsing dialog box. Clicking the Can in the subsequent Configure Localization dialo		
	• Enter a plus sign (+) if the character is part of the Container ID		do the barcode parsing configuration	
	• Enter a dash (-) if the character is not part of the Container ID	Barcodo Par	sing Pula Paramatars Entry	
	For example, the entry:	Barcode Parsing Rule Parameters Entry Validation		
	+++++++++			
	indicates that characters 3, 4, and 7 through 14 constitute the Container ID.		forms validation of your parameter entries ayed at the top of the dialog box.	
Check Digit Type	Select the check digit type for the symbology from the list.	Entry errors can	include:	
Container ID Result	When you have entered enough information in the other fields and lists to determine the Container ID, it is automatically entered by the system here.	• The Match a character ler	nd <b>Transfer</b> field entries are not the same ngth.	
	Use the result entry here to verify that you have made correct entries in the	• An entry is t	too short.	
	other fields.	<ul> <li>A symbolog</li> </ul>	y has not been selected in the Symbology 1	



# Editing a Barcode Parsing Rule

To edit a barcode parsing rule, in the **Configure Barcode Parsing** dialog box, click the Edit icon.

Preset: L	IS_NDC	+ Add New Rule		
Priority	Symbology	Rule	Check Digit	Actions
1	Code 128, ISBT 128	*********	DONTCHECK	<i>»</i> ×
2	Code 128, ISBT 128	01#03###########	GS1	<i>»</i> ×
3	EAN-128, GS1-128	01#03###########	GS1	X

Edit icon

The Edit Barcode Parsing Rule dialog box displays. The functionality of this dialog box is similar to the Edit Barcode Parsing Rule dialog box; the only difference is that you click the Save button to save your entries.

Original	0104030539053082
Barcode Data:	12345678901234567890123456789012345
Match:	010*****
	12345678901234567890123456789012345
Transfer:	++++++++++++++++++++++++++++++++++++
	12345678901234567890123456789012345
Check Digit Type:	No Check Digit
Container ID Result:	4030539053082
Symbology:	Data Matrix
Matal Dul	Cuid-
Match Rule #:	Match any number character
#: @:	Match any number character Match any alphabetical character
#: @: ?:	Match any number character Match any alphabetical character Match any character
#: @: ?:	Match any number character Match any alphabetical character
#: @: ?: Other: Transfer R	Match any number character Match any alphabetical character Match any character Match specific character <b>ule Guide</b>
#: @: ?: Other: Transfer R +: Transf	Match any number character Match any alphabetical character Match any character Match specific character ule Guide er character to Container ID
#: @: ?: Other: Transfer R +: Transf	Match any number character Match any alphabetical character Match any character Match specific character <b>ule Guide</b>
#: @: ?: Other: Transfer R +: Transf	Match any number character Match any alphabetical character Match any character Match specific character ule Guide er character to Container ID

#### Save button

# **Deleting a Barcode Parsing Rule**

To delete a barcode parsing rule, in the Configure Barcode Parsing dialog box, click the Delete icon.

Preset:	JS_NDC 💌	+ Add New Rule	+ Add New Rule		
Priority	Symbology	Rule	Check Digit	Actions	
1	Code 128, ISBT 128	********	DONTCHECK	<b>X</b>	
2	Code 128, ISBT 128	01#03##########	GS1	Ø 🗙	
3	EAN-128, GS1-128	01#03###########	GS1	×	

Delete icon

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You are prompted to confirm the deletion.

# Setting the Order of Barcode Parsing Rules

When a barcode is scanned from the AT or 500i, the system first identifies the barcode's symbology. It then applies the barcode parsing rules in their order of priority looking for a match. When a match is found, the system identifies the Container ID within the code.

To change the priority order of the barcode parsing rules, in the **Configure Barcode Parsing** dialog box, click and drag a rule entry to a different position in the list.

# Database Mode in the Configure Localization Dialog Box

In Version 1.4.0 AT software, the functionality of the Database Mode list selection changed. It no longer controls how barcodes are parsed; that is, handled by the Barcode Parsing Rules function. Now, Database Mode only determines whether the Master Drug Database (MDD) is in US NDC or Other mode.

Configure Localization	
Active Localization Pack: en-US-1 💙	
+ Add New Localization Pack	
Label Template Pack	
Active Label Template Pack: STD-1 🗸	La
ASA/ASTM/ISO MEDIUM FORMAT	{DrugName}         Kasks           (waRNNO)         Kasks           Preparet: (DirefTime)         By: (DirefTime)           By: (DirefTime)         By: (DirefTime)
+ Add New Label Template Pack	
	Label Size: 22mm x 60mm Template Version: v02
General	
Date Display Format: MM/dd/yyyy HH:mm 💌	
Database Mode: Other 💙	1
CID Length: Minimum: 3 💌 Maximum: 13 💌	
Barcode Settings	
✓ Edit Barcode Parsing Settings	
<b>V</b> = 1	
X Cancel	✓ Save
C	atabase Mode list

# **Technical Support**

If problems occur when using the AT, contact Codonics Technical Support.

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