Release Notes

Codonics[®] Safe Label System[®] Administration Tool Software

Version 2.6.0 Safe Label System Administration Tool Release Notes

Summary

Version 2.6.0 is a software release for the Codonics Safe Label System[®] (SLS) Administration Tool (AT). The software is compatible with SLS Point of Care Stations (PCS) installed with 2.6.0 software. As of this release, this version of software is considered the most current, stable, safe and effective version for SLS PCS.

This document provides information about New Features (i.e., Adaptive Updates), Product Improvements (i.e., Perfective Updates) and Product Corrections (i.e., Corrective Updates) in 2.6.0 SLS AT software.

NOTE: The AT Server application provides all the same capabilities as the existing AT Stand-alone application. As of 2.5.0, the AT Stand-alone application is no longer supported.

WARNING: If you're using WIN 10 as your computer's operating system to run the AT, pay careful attention to uninstalling previous versions (prior to 2.5.0) of the AT. WIN 10 can inadvertently uninstall the current version (i.e., 2.5.0) of the AT. Contact Codonics Tech Support with questions about the correct process.

The SLS AT User's Manual version 1.3.0 and User's Manual Addendum 1.8.0 provides further information about the AT.

Recommended - Requirements for AT Server: Processor: Xeon W-2135 @ 3.70GHz, Core i7-7700 @ 3.60GHz or faster. RAM: 8 GB for application. Application Disk Space: 30 GB total at install.

Minimum - Requirements for AT Server: Processor: Xeon X5660 @ 2.80 GHz, Core i7-2600 @ 3.40GHz or faster. RAM: 6GB for application. Application Disk Space: 10 GB total at install

Additional Information for AT Server:

Computer OS: Windows[®] 10, Windows Server 2012R2, 2016 and 2019. 64-bit required.

Concurrent access: Not supported.

Notes:

- For best performance hosting the SLS AT data directory, use a locally attached SSD or high speed RAID.
- When running the SLS AT on a VM, allocate at least two CPU cores to the VM.
- When running more than one instance of the SLS AT on the same hosting system, increase the system RAM by at least 3 GB for each additional instance.
- Both configurations shown are sufficient for running the SLS Email Notifier (EN) on the same system hosting the SLS AT.

Recommended requirements for AT Client: Browser support: Internet Explorer IE 11 or newer, Edge, Chrome Screen Resolution: Minimum 1440 x 900; use default browser fonts

Computer OS: Windows 10 or newer

Applications: Excel 2003 or greater to open reports

New Features

 SLS now integrates with Pharmacolog's WasteLog[®] Drug Diversion System. A special label template, EBD-1, and barcode definition (i.e., #8 Extended Barcode Definition) are part of the 2.6.0 release and are required for integration. A sample label looks like:

NOTE: Integration requires a feature key on SLS PCS. Contact your Codonics Sales Representative to obtain the proper key.





- AT User Roles and Permissions. This feature provides the ability to setup additional User Roles (Pharmacist, Bio Med, Pharmacy Tech) and assign specific permissions beyond the Administrator and Super User roles available as of 2.4.0 SW. Refer to Administration Tool User Management Technical Brief 901-287-002 for details.
- The AT migration has been simplified. During installation of the AT, a specific migration utility will be displayed to assist with migrating from a previous formulary to the new formulary. Refer to Administration Tool Server and Server Manager Technical Brief 901-253-018 for details.
- A new Epic integration label template, EHR-2, was added to the AT. It is the same as the EHR-1 label template but it also includes Preparation Date/Time in addition to Expiration Date/Time. A sample label looks like:

fentaNYL 50 mcg/mL Prep:02/04/2021 14:35 Exp: 02/05/2021 14:35 By: RSG

 A new Covid vaccine label template, CVD-1, was added to the AT. This label provides support for labeling Covid vaccine vials and syringes. A sample label looks like:



Product Improvements

 Provided capability to preview Custom Labels. When creating Custom Labels in the Configuration tab, you will now be able to preview a custom label the same as

previewing a drug label.

Edit Custom Label

Prepared: Expires:	11/20/2020 11:15 By: 11/21/2020 11:15
SVG Template:	custom-label-template.svg 🗸
Title Text:	
Copies:	1
Pattern:	Solid 🗸
Color:	#FFFD00 ¥
Primary Stripe:	Select a color 🛩
Secondary Stripe:	Select a color 💙
Text Color:	Select a color 🛩
Text Background:	Select a color 🗸
Expire Hours:	24

• The AT will now automatically lgnore invalid barcodes that are Drug Not Founds (DNFs). If a DNF event occurs that is less than the minimum digits to be considered a Container ID (e.g., in the US, 10 digits) per the barcode parsing settings in the AT, the event will be automatically ignored and placed in the lgnored filter. These lgnored events can be manually undone if desired.

	Euclidemolery for 52.5	Configurat	ion 🤮 User	'S LS User Lists	Devices Manage SLS Davions
Master Drug Database 35320	Learn Drugs	ity Drugs 📋 Create Report	ຳ Lindo 🝕 c	lean Up	
SLS Star Star 35320	Date/Time 🗘	Formulary	Drug Name	Master ID	Container ID
DNF Dive Net Found	11/20/2020 21:40]E0123456789
E fiers	11/20/2020 21:40]E012345678
Verifications Verification Events	11/20/2020 21:40]d012345678
Drug Not Found Events	11/20/2020 21:40]d0123456789
Unresolved Events not yet 8					
Resolved Events already 0					
Events that have been 4					

Improved the workflow of the Verification Filter in the AT including for 9-digit mapping. Previously, for drugs verified on SLS with 9-digit mapping, some customers reviewing the AT did not realize that the drug was NOT in the Formulary. They would Verify the drug in the AT but didn't end up adding it to their Formulary.





The workflow was enhanced in multiple dialogs by including a Save and Verify button as shown below.

Combination I	Drug		
laster ID:	00247013430		
ontainer ID:	0247013430		
lospital ID:	Enter Hospital ID		
Name:	EPINEPHrine	- [
Fallman:	EPINEPHrine		
Concentration:	1 v mg/mL	♥ - Select Number ♥	Select Units 💙
Route:	injectable		
Status:	ACTIVE ¥		
Add to Formu	hary ormulary	rent Drug	Ŷ

In addition, a Select in Formulary checkbox was added; indented under the existing Add to Formulary checkbox. When Select In Formulary is checked, after the user clicks Save, the AT is automatically navigated to the Formulary tab and scrolls to the exact drug entry added. The user may then choose to Edit, Smart Copy, or Delete the drug(s). If the user selects the Save and Verify button, a Verification dialog is shown and after completing verification, the AT is automatically navigated to the Formulary tab and scrolls to the exact drug entry that was verified where the user may then choose to Edit, Smart Copy, or Delete the drug.

 Improved the workflow of creating a New Drug in the AT. The workflow was enhanced by including a Create and Verify button as shown below.

New Drug		
Combination [Drug	
Master ID:	Enter 11 Digit ID	
Container ID:	5926710001	
Hospital ID:	Enter Hospital ID	
Name:	Pfizer Covid-19 Vaccine -	
Tallman:	Pfizer Covid-19 Vaccine	
Concentration:	30 V mcg V - Select Number V Select Units V	
Route:	Enter Route	
Status:	ACTIVE 🗸	
Add to Formul		

When Select In Formulary is checked, after the user clicks Save, the AT is automatically navigated to the Formulary tab and scrolls to the exact drug entry added. The user may then choose to Edit, Smart Copy, or Delete the drug(s). If the user selects the Save and Verify button, a Verification dialog is shown and after completing verification, the AT is automatically navigated to the Formulary tab and scrolls to the exact drug entry that was verified where the user may then choose to Edit, Smart Copy, or Delete the drug.

The AT now indicates what is wrong when importing an invalid certificates.zip file on the AT user interface, rather than just in the logs. An example below shows the message, MAC address folders must be contained in a folder named "certificates." Either this folder is missing or "certificates" is misspelled.

Invalid	Directory Structure
4	MAC address folders must be contained in a folder named "certificates." Either this folder is missing or "certificates" is misspelled. Expected structure:
	✔ ОК

The AT Device Manager (AT-DM) now provides an indication of when SLS was last online or since when it was offline. To assist with knowing if units have been moved around or a unit really needs attention, Online Status now provides further details in the AT-DM. It identifies either SLS's most recent online date/time or since when it was Offline.



 The AT now allows the Message Notification Service (MNS) to be disabled. In the Advanced link of the AT an additional setting for Enabling the Message Notification Service is selectable if users want to prevent the AT from attempting to contact the Codonics MNS.

Enable Message Notification Service	

 AT-DM now displays the ink type in the lnk Type column. Like the other columns, it is configurable



whether or not to be displayed.

L.		
IP Address	Ink Type	Actions
10.1.134.81	Type 1	i B

• The Make User Badge button is no longer displayed on SLS if it is disabled in the AT. Now when disabling the ability on SLS to create a user, the SLS will no longer display the Make User Badge button. To disable the ability to create a user on SLS, uncheck the box in the Configuration tab, Security tab.

	Build formulary	Configuration Build SLS Config File
Safety	Create Package	
Security	User	
System	Require PIN: Logoff Timeout:	28800 Seconds
Syringe Labels	Allow Badge Logon for Unknown Us Enable Create User on SLS: Print User ID on Badge	iers:
Custom Labels	Network Port:	22
Advanced	Enable Device Name:	
	Read-Write Password:	Edit Reset
	Read-Only Password:	Edit Reset
	Wi-Fi Certificate Folder:	Ger Browse

 Added a new column to identify User Package version in the AT-DM. Like the other columns, it is configurable whether or not to be displayed.



- The User report is now based on the last time a User package was generated. Previously, the User report showed a summary of all modifications since the last time a User report was generated, not since the last time a User package was created. Now, when changes are made to the users in the Users tab of the AT, these changes will be included in a Users report. Once a User package is created, the user changes will be removed from the report.
- ◆ The AT supports new drug names. The drug names are Barium sulfate, Iopamidol, Gadoteridol, Epoprostenol, Lacosamide, Covid-19 Vaccine, Pfizer-Biontech Covid-19 Vaccine, Moderna Covid-19 Vaccine.
- The AT supports new numbers. 0.0225 and 105.

Product Corrections

- Previously, adding or removing a diluent in a drug entry took a long time to save in the SLS Formulary. This no longer occurs.
- The AT previously would become stuck in a Transferring Install, after it stated the Install has failed. This could occur if an Ethernet cable dislodged from the SLS during the transfer of a package. In order to get out of the state, previously a user would have to power cycle the SLS PCS. Now, after reconnecting the Ethernet cable, the AT will allow you to reinstall the package.
- Previously, SLS could be muted with a Default Volume higher than 0%. SLS will no longer be muted if the configuration in the AT is set by manually entering 1-9 into the entry with a keyboard.
- Previously, interrupting an SLS package installation (e.g., network disconnecting) did not cause the AT to display an Installation Failed event. Now, if there is a network disconnect during package installation, the AT will correctly display that the Installation Failed.
- Adding a custom drug audio file name which conficts with a built-in audio file name can cause an Error Contacting Server. Now, the custom drug audio file will take precedent and work correctly and no error is displayed.
- Previously, user packages could not be added to multipackages when using the Combine Packages feature. Now, a user package can be part of a multipackage.
- ◆ The Drug Classification Templates interface did not always display the correct or any barcode. The interface now correctly displays a 1D barcode in the EHR-1 label template and a 2-D barcode in the STD-1 label template.
- Previously, barcode rules with multiple matches were not handled correctly in US Mode. When there were multiple matches, the AT would not create a drug entry for that Container ID (CID). Additionally, Verification could not be completed for that CID. Now, if a barcode matches multiple rules, the AT will ask the user to select which CID they want to use.
- ◆ Active Label Template Pack list would duplicate after migration. This issue would only occur the first time at startup of a new AT after migration. The issue no longer occurs.
- Previously, sorting in Users tab removed the highlighted selection. The users were still selected but not highlighted. Now, when sorting in the Users tab, the selection remains highlighted.



- Copying a drug in the AT can no longer cause the overlay to disappear and allows the user to interact with items in the background.
- Invalid barcodes are now correctly reported in the Primary Barcode Compatibility tab in the Formulary Report.
- Previously, uploading a Lexicomp file a second time would fail to upload the file. If a user chooses to import a Lexicomp filter and chooses to upload the same file again, the AT no longer errors and instead will upload the file.
- Previously, when copying a master drug entry and using the Scan Drug Container button, if an invalid CID was scanned, the field would be blank. Now, the AT displays an error message.
- Corrected an issue where the multi-edit of formulary drugs could lead to having all the diluents unselected for the same drugs. Previously, when individually editing one of the same drugs' diluents, both drugs' diluents could all become unselected.
- Updated the pronunciation of colistimethate and povidone ophthalmic sound files.
- Previously, an automatic logout dialog message could sometimes appear during formulary package generation. The issue could occur depending on the number of drug entries and the performance of the computer running the AT. This issue no longer occurs.
- In 2.5.0, formulary import would fail to complete when importing a CSV entry with a duplicate dilution.
 Previously, no drugs would be imported. Now when performing a formulary import, the AT identifies when there is a duplicated dilution in the CSV and will import the drug without error and include the duplicated dilution without having duplicates in the formulary.

Known Common Issues

This section details common issues with 2.6.0 AT software that are likely to be experienced by most users. These issues are specific to the current release; previous issues can be found in previous Release Notes. None of the issues included in the document are considered to render the product unsafe or ineffective for clinical use.

- WARNING: The formulary report does not sort duplicates. Duplicate Container IDs in the formulary are reported but are displayed in a way that may not put the duplicates together. You can sort the Excel spreadsheet on Container ID.
- ◆ WARNING: Replacing drug names with non-Latin characters (e.g., Kanji, Hebrew) causes duplicate drug entries in the MDD. When the MDD screen is sorted by drug name, changing a drug name to start with a non-Latin character causes the drug to display twice. When the issue occurs, editing either of the duplicate drug entries on the MDD properly changes the other entry. Re-sorting the MDD list or refreshing the MDD by switching to another page in the AT and then back causes the drug name to only display once, sorted after the names that start with Latin characters. If the drug is already in the SLS PCS formulary, then the drug name will display with the changed characters in the formulary and will be listed only once.
- WARNING: The pre-import report does not identify duplicate drug IDs when importing via a CSV. You are required to run a formulary report before generating an approved formulary and should review the Duplicate reports in the Safety worksheet to make sure all duplicates or potential duplicates in the MDD and formulary are identified.

Known Uncommon Issues

This section details uncommon issues with 2.6.0 AT software that are unlikely to be experienced by most users. These issues are specific to the current release; previous issues can be found in previous Release Notes. None of the issues included in the document are considered to render the product unsafe or ineffective for clinical use.

- WARNING: A concentration length of greater than 15 characters is converted to an incorrect value in the MDD when imported. For example, a number such as 12345678901234567890 is converted to 92,233,720,368,547.77.
- ♦ WARNING: If a drug record is modified in the MDD after it has been added to the formulary, the AT does not automatically update the audio file association. If the drug name is changed in the MDD, the associated audio file will not change, resulting in a possible incorrect association. As a work around, you can either remove and then add the drug to the formulary to trigger a new audio file association, or manually select the correct audio file from the formulary edit dialog box.



- WARNING: Combination drugs with long drug names do not display the second drug name. Combination drugs with very long drug names only display the first drug name as truncated. There is no indication as to what the second drug name is. Users should look to modify the entry of the drug name (e.g. Calcium can be entered as Ca). Another option is to enter the drug name in the Tallman field of the AT which will reduce the font size.
- WARNING: Dilution units that are different from the parenteral container do not always provide a warning. When the initial parenteral unit (e.g., mg) is the same as the first unit in the dilution (e.g., mg/mL) a warning is not provided. However, when the parenteral drug unit is different than the initial dilution units (e.g., parenteral container is $g \rightarrow diluted$ container is mg/mL), the AT does provide a warning that they are different units.
- Zooming potentially causes a minor row offset in the AT. This issue occurs only at 110% zoom in Chrome, and Edge (Chromium based). It does not occur in IE 11, Firefox, or older Edge. The AT actions column rows become slightly offset from the rest of the grid in all grids of the AT.
- Adding invalid feature keys displays an Error Contact Server (ECS). When adding a feature key that has any of the following properties (e.g., empty field, single or double or special characters, all numbers or mix of numbers and characters) results in the AT displaying an ECS instead of Invalid Feature Key Error messsage.
- SLS can lock-up when updating with a software app package (e.g., SLS-APP-2_6_0_RC6-001.pkg). When installing a multi-package on the SLS that contains a software APP package, the SLS can become stuck on the dialog indicating that the SLS was shutting down. If this occurs, power off and restart the SLS PCS, and reinstall the multi-package.

For 2.1.1 through and including 2.2.0 software releases, hidden (i.e, nonbroadcasted) SSIDs for enterprise WiFi require different configuration settings. The set up for the conf and conf.debug file within the certificates folder of each Wifi MAC Folder require an updated entry. Here are the additional network configuration settings required for the files:

wifi.conf

wpa-ssid [HiddenSsid] wpa-ap-scan 1 wpa-scan-ssid 1

wifi.conf.debug

ap scan=1

network={

scan ssid=1

Refer to AT User's Manual, Codonics Part Number 905-063-030 section 6, for all other network configuration file settings.

- Changing barcode parsing rule presets from US_NDC to Custom does not warn you that custom rules will be removed.
- Second preparer's initials are not supported on a small label template pack (e.g., STD-S1 and ZH-S1). Small labels do not support preparer's initials.

Technical Support

If problems occur during software installation or operation, contact Codonics Technical Support at any time.

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