ZOLL RescueNet Code Review Getting Started Guide

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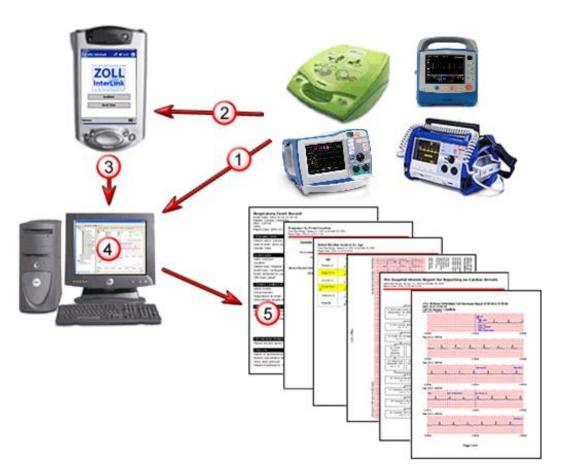


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1, 2, 3) Transfer the case data from the defibrillator into RescueNet Code Review via Bluetooth, infrared, USB, or serial cable connection. You can also transfer it from the defibrillator's flash card via the card reader. Transfer methods are dependent upon your defibrillator model.

4) Use RescueNet Code Review to review the case and add information as needed.

5) The system provides a variety of case and aggregate reports, as well as an export function, which easily enables you to analyze your data.



Chapter 2: Getting Started

Starting RescueNet Code Review

RescueNet Code Review

RescueNet Code Review opens with no loaded cases.

RescueNet Code Review™, Enterprise Edition	
File Edit Tools Help	
🚱 🎭 📾 🖯 👂 階 ቐ 🚷 🚸 🖉 🔮 🍑 🤌 🤊	
	1 - General 2 - Entire ECG 3 - Magnified ECG 4 - CPR Analysis 5 - CPR Quality Calculation 6 - 12-Lead 7 - Snapshot 8 - Code Record 9 - Prehospital Utstein
	No case loaded.



Opening Cases

Search and open cases located in ZOLL CaseReview.



Upload a stored record by transferring it from an AED PlusTM or AED ProTM via an infrared connection.



Upload a stored record by transferring it from a defibrillator's linear flash card via a card reader.



Upload a stored record by transferring it from a defibrillator via a serial cable connection.



Upload a stored record by transferring it from a defibrillator via a Bluetooth connection.



Open a stored case by transferring it from a defibrillator's compact flash card via a card reader.



Open a stored case by transferring it from a USB drive.



Upload a stored case by transferring it from a network location.



Upload a stored record from the ZOLL AutoPulse[®] Noninvasive Cardiac Support Pump via an infrared connection.



Search for and open an existing case located on the local file system or network



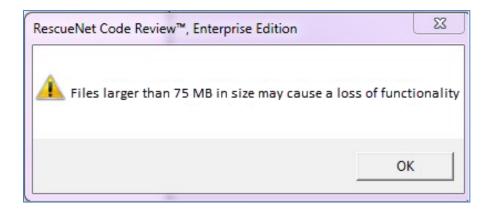
Create a new blank case. You can import a defibrillator or AutoPulse record at any time.



Open one of the last five recently viewed cases from the File menu:

<u>₹₩</u> F	RescueNet Code Review™, Enterprise Edition	
File	Edit Tools Help	
	New	+
	<u>U</u> pload	•
2	<u>O</u> pen	Ctrl+O
9	Search	Ctrl+F ۲
	Search CaseReview	
	Close	Ctrl+W
	Close <u>A</u> ll	
	Save	Ctrl+S
	Delete	
9	Print	•
	Rena <u>m</u> e	
	Send <u>T</u> o	► ^S
	Expo <u>r</u> t	•
	1 P:\CodeData\QA\Defib Case Library\20140508134228_AR12F001059(2).zol	
	2 P:\CodeData\QA\Defib Case Library\20140508134228_AR12F001059(1).zd	
	3 P:\CodeData\QA\Defib Case Library\20160205101507_AR14D007789.zol	
	4 P:\CodeData\QA\Defib Case Library\X-Series\1 Jan 2015\1-12-15\AR14D007789-20150112-133501.zol	
	5 P:\CodeData\QA\Defib Case Library\20150107105827_AR14H009633.zol	
	Exit	

Important! If you load a case file that is larger than 75 MB, the following message displays:





Upload Cases

CaseReview

If you are using ZOLL CaseReview, you can upload cases from ZOLL CaseReview to RescueNet Code Review to add user-defined CPR periods and pause reasons. Once this is done, you can return to CaseReview to view the modified CPR quality metrics including aggregate CPR dashboards.

Note: Before you upload cases from CaseReview, the CaseReview location must be configured on the Options window. You must know the Host URL, Port, user name or DAK/Alternate ID, and password.

Options
Data Card Reader Serial Bluetooth Network View System CaseReview
Host URL:
Port:
Password:
OK Cancel Apply

Some of this information exists in CaseReview under the Settings menu item on the navigation bar.

CaseRevi	ew Importer					
₫ Do	wnload Applicat	The CaseReview Importer is system, USB devices, and w			ollecting files fr	om you
User Peri	missions 😡					
Allow nor	admin users to de	elete cases				
		elete cases ew auditable case transactions				
					1	Subm
					I	Subm
 Allow nor 	n admin users to vi				l	Subm
 Allow nor 					l	Subm
Allow nor Data Acc Data Acc	n admin users to vi				I	Subm
Allow nor Data Acc Data Acc	ess Keys 0		Alternate ID	Password	Enabled	Subm

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X



To upload cases from CaseReview:

- 1. On the navigation bar, click Search CaseReview 🔽. The Search CaseReview window displays.
- 2. On the Search CaseReview window:
 - a. Upload cases with specific attributes: Upload cases with specific

attributes: Use the options on the left side of the window to narrow your search. As you check an option, the field to the right of the option enables to allow you to enter information. After entering the information, click **Search**. Because the search will return a maximum of 1000 cases, it is important to enter search attributes to limit the number of returned cases.

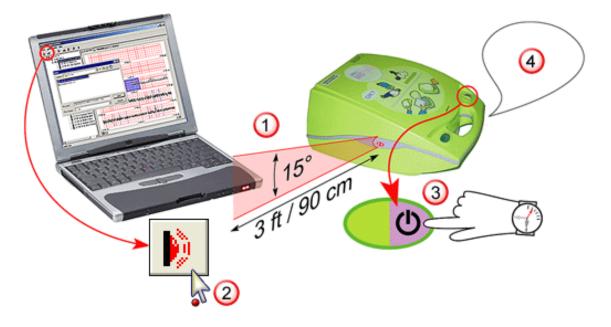
b. A progress bar displays. Once loaded, the cases display at the bottom of the page. Double-click a case to open it in Code Review.

Search CaseReview		23
Search in this case start date range:	9/ 1/2014 💌 to: 10/17/2014 💌	Search
Search in this upload date range:	9/ 8/2013 v to: 1/15/2015 v	Cancel
Search for this serial number:		Reset criteria
Search for this device ID:		reservicence
Search for this file name:		
Search for these tags:	Tags	
Start Date Start Time Patient ID	Serial Number File Name Tags	
	AR14D007789 20150403105432_AR14D007789.zol	
	AR14D007789 20150403092418_AR14D007789.zol	
04/03/15 16:04:54 Patient 0356 /		
04/27/15 14:24:30 Patient 0366		
	AR14D007789 20150427140948_AR14D007789.zol Shock	
07/23/15 11:21:45 Patient 0104 / 07/01/15 11:13:46 Patient 0440 /		
12/17/14 13:37:01 Patient 0205		
08/19/15 09:54:55 Patient 0155		
08/10/15 10:26:30 Patient 0141		
		1
		Open



Infrared

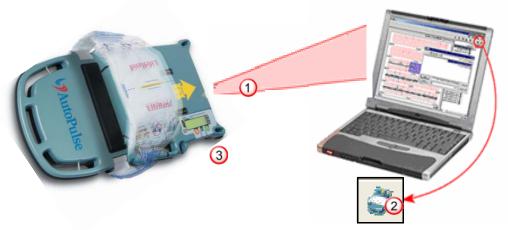
AED/AED Pro



- 1. Position the AED Plus or AED Pro so that its infrared port lines up with the RescueNet Code Review workstation's infrared port or reader.
- 2. In Code Review, click the Upload Case from Infrared button.
- 3. On the defibrillator, press and hold the On button.
- 4. Keep holding the 'On' button until you hear the defibrillator say, "Non-rescue mode. Communications established."
- 5. In Code Review, a dialog box displays the transfer progress.



AutoPulse



- 1. Position the AutoPulse so that its infrared port lines up with the RescueNet Code Review workstation's infrared port or reader.
- 2. In Code Review, click the Upload Case from AutoPulse button.
- 3. On the AutoPulse, turn ON. Press the Menu key. Select *Enter Communication Mode*. Press ENTER key.
- 4. In Code Review, a dialog box displays the transfer progress.



USB drive

AED Plus/AED Pro



- 1. Remove the battery cover from the top of AED Pro by releasing the front latch and lifting up on the cover.
- 2. Press and hold the Power button on the AED Pro for 5 seconds.
- 3. Press the left softkey labeled USB.
- 4. Press the left softkey labeled New.
- 5. Insert USB drive into USB port located above the battery in upper right corner. (You may need to remove the rubber USB port protector.)
- 6. The defibrillator recognizes that you inserted the device and downloads data. It announces, "Data download complete". Remove the USB drive and insert into the USB port on your computer.
- 7. In Code Review, click Upload Case from USB. The Select drive dialog appears. Select the drive letter of the USB drive and click **OK**.
- 8. A dialog box displays the transfer progress.



Page 10

ProPaq M/MD, R Series, Plus, or X Series

Open case

- 1. To copy available cases from the device to a removable USB, follow the instructions in the Operator's Guide associated with the device.
- 2. Connect the USB device to the computer.
- 3. In Code Review, click **Open**.
- 4. Browse to the USB device.
- 5. Select the .tdp case file(s) to open.
- 6. Code Review creates a .zol file for each case and stores it in the default data directory.





USB

- 1. To copy available cases from the device to a removable USB, follow the instructions in the Operator's Guide associated with the device.
- 2. Connect the USB device to the computer.
- 3. In Code Review, click the Upload Case from USB button. The select drive dialog appears. Select the drive letter of the USB drive and click **OK**.
- 4. A dialog box displays the transfer progress.







Bluetooth

M Series/E Series with Bluetooth module



- 1. Position the defibrillator near the Bluetooth-enabled RescueNet Code Review workstation. Bluetooth is omnidirectional with a range of 20 – 30 feet.
- 2. In Code Review, click Upload Case from Bluetooth.
- 3. On the defibrillator, press and hold the leftmost softkey and turn on the defibrillator. Continue holding the softkey until the System Utilities screen displays and then press the Upload Card softkey.
- 4. On the Upload screen, press the Send softkey. On the E Series, press Bluetooth before you press Send.
- 5. In Code Review and on the defibrillator, progress bars display the transfer progress.



Card reader

M Series/E Series/R Series and 1600/1700



1. Insert the defibrillator's flash card into the RescueNet Code Review workstation's card reader.

Note: Inserting the card may prompt the Windows "New Hardware Found" wizard to appear and request to search for drivers. The system installs the necessary drivers with Code Review. You can prevent this message from appearing every time you insert the card by informing Windows not to prompt for drivers again. To do this, click **Next**, **Next**, **Finish**.

- 2. In Code Review, click the Upload Case from Card Reader button. A progress bar displays transfer progress.
- 3. When the transfer is complete, you can erase the card and re-use it in either an M Series/E Series or 1600/1700 defibrillator.

Tools Help	
	🚸 🖉 😒 🍣 🖨 🦆 🤌 🕈
<u>E</u> rase Data	From <u>C</u> ard Reader
13:42:29 ECG 13:42:31 Pads	From <u>U</u> SB/CompactFlash

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Serial

M Series/E Series



- Connect the defibrillator to the RescueNet Code Review workstation's serial port. For the M Series/E Series, you must use the ZOLL RS-232 Data Transfer Cable (ZOLL part number 8000-0605-01), which terminates in a female DB9 connector. For the 1600/1700, you must use a ZOLL 1600 Serial Link Cable and Connector (ZOLL part number 8000-1614).
- 2. In Code Review, click the Upload Case from Serial button.
- 3. On the defibrillator, press and hold the leftmost softkey and turn on the defibrillator. Continue holding the softkey until the System Utilities screen displays, and then press the Upload Card softkey. On the Upload screen, press the Send softkey. On E Series, you will need to press RS 232 before pressing Send.
- 4. In Code Review and on the defibrillator, progress bars display transfer progress.

Note: For serial uploads using the 1600/1700 defibrillator, refer to the 1600/1700 Operator's Guide.

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Wi-Fi

R Series Plus and X Series

On the defibrillator, use the transfer instructions found in the Operator's Guide for your device.

- When you save to Wi-Fi, the system places the files in a "Full disclosure files" location on the configured server. In Code Review, you can rectify that location by going to Tools > Options > Network > Full disclosure files location.
- 2. To upload the files to Code Review, click the Upload Case From Network icon 2. The system retrieves the files from the full disclosure files location.

ſ	RescueNet Code Review™, Enterprise Edition						
	File Edit Tools Help						
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	Upload Case From Network						



Search for Cases Previously Uploaded in CaseReview

See the ZOLL CaseReview User Guide for more information on how to configure and use the Search CaseReview application.

Search for cases previously uploaded

- 1. Click the Search button.
- 2. Select any combination of criteria (A), and then click Search (B).

Search				×
Folder to search: C:\ZOLL\ZDData\	folders		Browse	Search Cancel
Search using any combination of these	e criteria:		_	Reset Criteria
Search in this date range:	8/ 3/2014 💌 to: 1/15/2015	▼		
Search for these specific events:	Events			
Search for this viewed status:	Not viewed 💌		A	
Search for this text:		In these fields:	Patient name Run number Patient ID / MR number All fields	
Custom query:	Any Code Log Events		_	

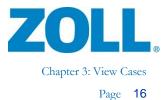
3. The system lists all cases that match that criterion. You can click any column header to sort by that column (A), select the case or cases you want to open (B), and then click Open (C).

Folder to search	C\ZOLL\ZDDate	a/			Browse		Search
D	✓ Also search:	subfolders					Cancel
Search using an	y combination of the	ese criteria:					Reset Criteri
 Search in this 	s date range:	8/ 3/20	14 💌 to: 1/15/2	D15 💌			
Search for th	ese specific events	: Even	ts				
Search for th	is viewed status:	Not view	ed 🔄	~			
Search for th	is text				tient name		
					in number itient ID / MR number		
				O All			
Custom quer							
Custom que	y:	Any Cod	e Log Events		~		
Custom que	y.	Any Cod	e Log Events				
Date	y: Start Time	Any Cod	e Log Events	Run Number		Patient ID / MR Number	
Date 2014-10-15	Start Time 09:54:54					Patient ID / MR Number	· []·
Date 2014-10-15 2014-10-14	Start Time 09:54:54 13:10:16			Patient 0657		Patient ID / MR Number	<u>، ا</u>
Date 2014-10-15 2014-10-14 2014-10-14	Start Time 09:54:54 13:10:16 13:10:16			Patient 0657 Patient 0657		Patient ID / MR Number	r
Date 2014-10-15 2014-10-14 2014-10-14 2014-10-14	Start Time 09:54:54 13:10:16 13:10:16 13:10:16	First Name		Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	r
Date 2014-10-15 2014-10-14 2014-10-14 2014-10-14 2014-10-14	Start Time 09:54:54 13:10:16 13:10:16 13:10:16 13:10:16			Patient 0657 Patient 0657 Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	· · · ·
Date 2014-10-15 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14	Start Time 09:54:54 13:10:16 13:10:16 13:10:16 13:10:16 13:10:16	First Name		Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	r
Date 2014-10-15 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14	Start Time 095454 13:10:16 13:10:16 13:10:16 13:10:16 13:10:16 09:45:56	First Name		Patient 0657 Patient 0657 Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	r
Date 2014-10-15 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-15 2014-10-15	Start Time 095454 13:10:16 13:10:16 13:10:16 13:10:16 13:10:16 09:48:56 09:48:50	First Name		Patient 0657 Patient 0657 Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	<u> </u>
Date 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-15 2014-10-15	Start Time 09:54:54 13:10:16 13:10:16 13:10:16 13:10:16 13:10:16 09:48:56 09:49:10 09:53:23	First Name		Patient 0657 Patient 0657 Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	r
Date 2014-10-15 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-15 2014-10-15 2014-10-15	Start Time 035454 13:10:16 13:10:16 13:10:16 13:10:16 09:48:56 09:49:10 09:53:23 09:53:25	First Name		Patient 0657 Patient 0657 Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	r
Date 2014-10-15 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-15 2014-10-15 2014-10-15 2014-10-15	Start Time 095454 13:10:16 13:10:16 13:10:16 13:10:16 09:49:50 09:49:10 09:53:25 09:53:24	First Name		Patient 0657 Patient 0657 Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	<u> </u>
Date 2014-10-15 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-15 2014-10-15 2014-10-15 2014-10-15 2014-10-15	Start Time 055454 13:10:16 13:10:16 13:10:16 13:10:16 09:48:56 09:48:56 09:52:23 09:53:25 09:53:25 09:53:44 09:53:45	First Name		Patient 0657 Patient 0657 Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	
Date 2014-10-15 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-14 2014-10-15 2014-10-15 2014-10-15 2014-10-15	Start Time 095454 13:10:16 13:10:16 13:10:16 13:10:16 09:49:50 09:49:10 09:53:25 09:53:24	First Name		Patient 0657 Patient 0657 Patient 0657 Patient 0657 Patient 0657		Patient ID / MR Number	

Note: If you are archiving or sorting your cases into subfolders of the Default data files location folder, the Also search subfolders option (D) enables you to search those folders at the same time as the Default data files location folder.

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2



Chapter 3: View Cases

Navigate the Case Tree

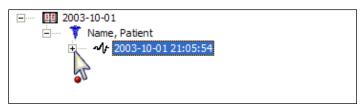
1. Case date:



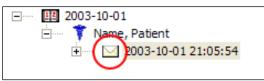
2. Patient name:



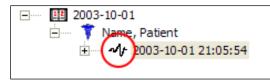
3. Case ID (date/time, preference by run number, if any):



The case initially opens with a status of Not Viewed.

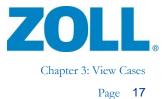


After five seconds, the status changes to Viewed.

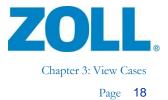


4. Case events (click any event to display its data on the tabs):









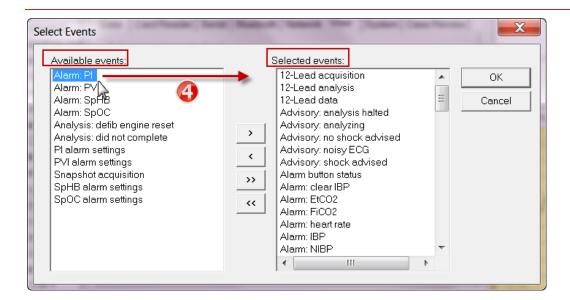
Select the Type of Events to View

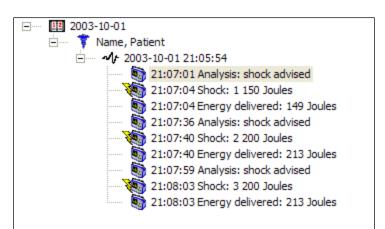


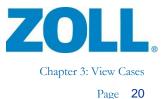
Options 🛛
Data Card Reader Serial Bluetooth Network View System CaseReview Select event types to display in case tree: Image: CaseReview Ima
 ✓ General ✓ Entire ECG ✓ Magnified ECG ✓ CPR Analysis ✓ CPR Quality Calculation ✓ 12-Lead ✓ Snapshot ✓ Code Record ✓ Prehospital Utstein
 Display 12-Leads in Cabrera format
OK Cancel Apply









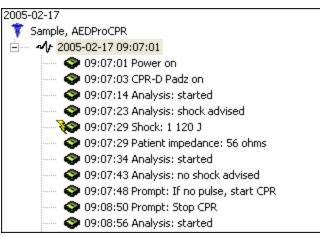


Turn On/Off Audio Prompts (AED Plus/AED Pro)

hr X Options Data Card Reader Serial Bluetooth Network View System CaseReview Default data files location: (CodeData)(Case Review)(Demo Cases) Ignore test cases ✓ Upload all AED Pro files (including previously uploaded files) Don't automatically mark cases as viewed ✓ Include audio prompts ✓ Include extended audio prompts Rhow confirmation dialog when linking and unlinking cases Show warning when saving incomplete Utstein data ✓ Upload all AutoPulse deployments (including previously uploaded) OK Cancel

Note: To see how the case tree size changes depending on the audio prompt settings, see below.

Default view - include audio prompts



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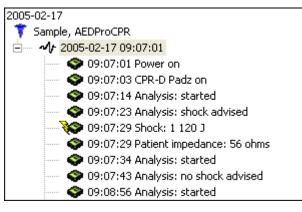


Page 21

2005-02-17
🚏 Sample, AEDProCPR
È ≁/ 2005-02-17 09:07:01
O9:07:01 Power on
O9:07:03 CPR-D Padz on
🌍 09:07:06 Prompt: Unit OK
🔷 09:07:07 Prompt: Adult pads
O9:07:11 Prompt: Don't touch patient, analyzing
🔷 09:07:14 Analysis: started
O9:07:18 Prompt: Don't touch patient, analyzing
🌍 09:07:23 Analysis: shock advised
O9:07:23 Prompt: Shock advised
O9:07:24 Prompt: Don't touch patient
🗇 09:07:26 Prompt: Press flashing shock button
🛶 💓 09:07:29 Shock: 1 120 J
🗢 🌍 09:07:29 Patient impedance: 56 ohms
🍣 09:07:29 Prompt: Shock delivered
🗇 09:07:31 Prompt: Don't touch patient, analyzing
🍣 09:07:34 Analysis: started
🗢 📀 09:07:38 Prompt: Don't touch patient, analyzing
🍣 09:07:43 Analysis: no shock advised
O9:07:43 Prompt: No shock advised
🗢 📀 09:07:45 Prompt: Open airway
O9:07:46 Prompt: Check breathing
O9:07:47 Prompt: Check pulse
O9:07:48 Prompt: If no pulse, start CPR
🗇 09:08:50 Prompt: Stop CPR
🗇 09:08:53 Prompt: Don't touch patient, analyzing
🗢 📀 09:08:56 Analysis: started

Optional view 1 - include extended audio prompts

Optional view 2 - audio prompts off

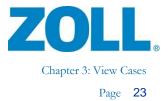




Select Data Tabs to Display

Options	-			X		
Select ever Events. Visible da ØGener ØEntire I ØMagnit ØCPR Q Ø12-Lea ØSnaps ØCode I ØPrehos	ata views ata views al ECG fied ECG unalysis Duality Calculation ad hot	3	ew System Cas	seReview		
		ОК	Cancel	Apply		
<u>7</u> -	Snapshot	<u>8</u> - Co	ode Record		9 - Prehospital Uts	tein
<u>1</u> - General	2 - Entire ECG	3 - Magnified ECG	4 - CPR Analysis	5 - CPR Q	uality Calculation	<u>6</u> - 12-Lead

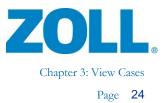
Note: The 12-Lead, Code Record, and Prehospital Utstein tabs are available in the RescueNet Code Review Enterprise edition.



General information

Case		
Run number:	Patient 0657	
	2014-10-14 13:10:16	
Data duration:		
, File name:	C:\ZOLL\ZDData\20141014131016_AR12E	000834(1).zol
Tags:		Edit Tags
Comments:		
		A
		-
Defibrillator		
Device type:	ZOLL®X Series® Defibrillator	
Serial number:	AR12E000834 (02.09.06.00)	
Device ID:	LHB AMB01	
Power on time:	2014-10-14 13:10:16	
Adjusted power on time:	2014-10-14 13:10:16	Adjust
Operator:		
Defice		
Patient		-
Patient ID / MR number:		
Last name:		
First name:		
MI:	Gen:]
Sex:	·	
Race:	·	
DOB:	1900-01-01	🔲 🗖 Unknown
Height:	in 💌	
Weight	Ibs 💌	
AutoPulse		
Serial number		
	1	
Model	1	_
Software version	1	_
Deployment ID	: -	

н



Tags

Under the General > Case section, apply a tag to a mark a case so you can easily find in in the future for further analysis. You can apply a tag to any type of case.

If you upload a case from CaseReview that has applied tags, the tags will display in the Tags field.

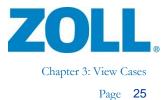
If you apply a tag using Code Review and then upload the case to CaseReview, the tag displays on the CaseReview Manage page when you view the case.

You can view all the tags configured in the system, add a new tag, or edit an existing tag.

1. Click **Edit Tags**. The system displays a list of configured tags.

Available tags:	Selected tags:	
12 Lead Shock Defib snapshot		OK Cancel
	> < >> <<	
		Create Ne

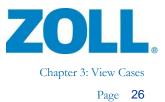
- 2. Use an existing tag:
 - a. Click a tag to highlight
 - b. Click > to move the tag to the Selected tags column
 - c. If you wish to apply multiple tags to the case, continue selecting the tags and moving them to the Selected tags column
 - d. When you are finished, click OK. The tags display in the Tags field.
- 3. Create a new tag:
 - a. Click Create New
 - b. Enter the tag name in the window and click OK
 - c. The tag name displays in the Available Tags list



1 - General 2 - Entire ECG 3 - Magnified ECG 4 - CPR Analysis 5 - 12-Lead Grid size is 1.00 s x 1.00 mV at Gain x1 а A 14 11 m 08:40:13 08:40:28 08:40:43 н ر معا<mark>ليا</mark> ويدور ما ومرودوديهم b 08:40:58 08:40:43 08:41:13 and and projection 08:41:13 08:🛕:28 08:41:43 С 08:41:43 08:41:58 08:42:13 J. Jy . المسارية مار مار 08:42:13 08:42:28 08:42:43 44 4 d F F

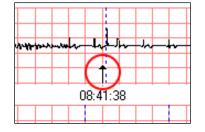
Entire ECG

- a) Grid size is 1.00 s x 1.00 mV at Gain x 1
- b) 6-second reference box
- c) Midpoint
- d) Click scroll arrow to move 00:00:30. Click in scroll box to move 00:02:00

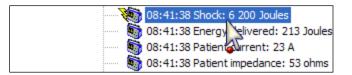


Magnified ECG and Animation

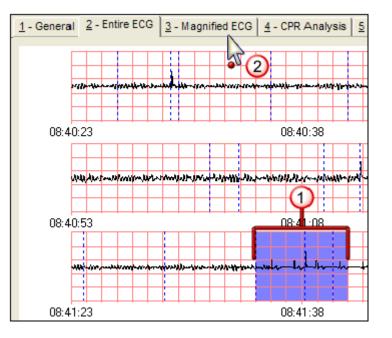
To view a magnified portion of the ECG, click the portion you want to magnify on the entire ECG.

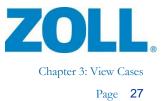


On the other hand, in the case tree, click the event you want to magnify.



Alternatively, to display the portion of the entire ECG in the reference box, click the 3 – Magnified ECG tab.



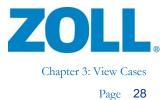


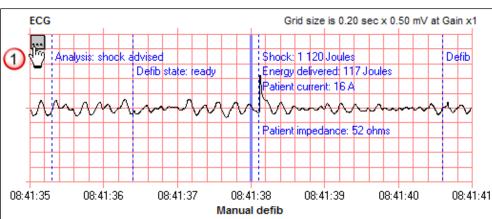
1 - General 2 - Entire ECG 3 - Magnified ECG 4 - CPR Analysis 5 - CPR Quality Calculation 6 - 12-Lead F I Numeric values update at 30 second intervals. NIBP 104 CO2 CO2 SpO2 ECG x1 33 Sp 97 190 mmHg BR 22 SpMet 0.7 0/2 71 Pads mmHg FiCO2 SpCO 0 3 82 P1 0/0(0) T 98.8 SpHB CPR T1 ----3.195 in SpOC ----T2 -PVI ---°F 121 cpm ΔT ----PI Pads Grid size is 0.20 s x 0.50 mV at Gain x1 ... NIBP: reading NIBP (mmHg) 104/71/82(M) (17:24:43) 17:24:44 17:24:40 17:24:41 17:24:42 17:24:45 17:24:46 Defib mode: Manual mode

The system displays the selected portion of the ECG on the Magnified ECG tab.

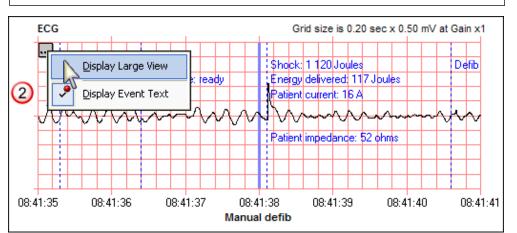


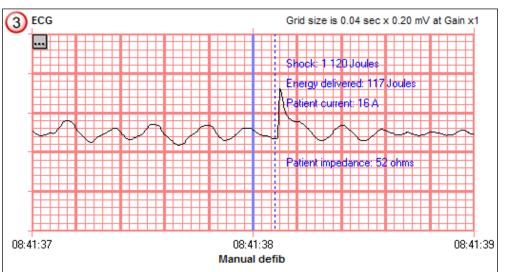
Animated ECG controls.

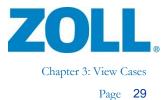


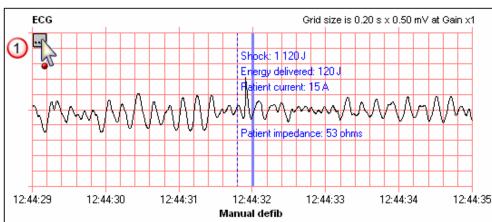


Magnified ECG – Display large view

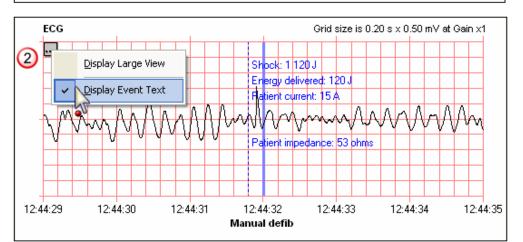


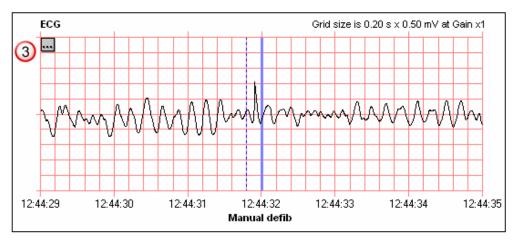






Magnified ECG – Display event text

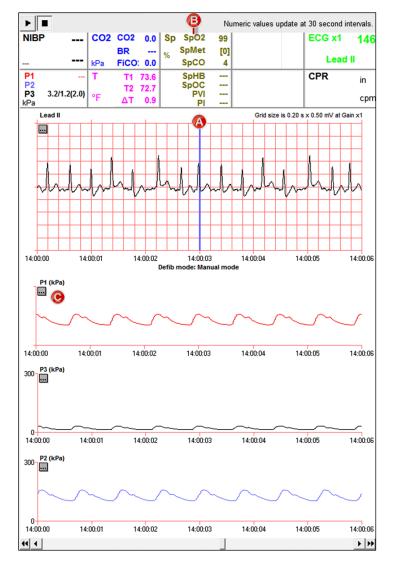






Advanced parameters

The system displays advanced parameters on the Magnified ECG tab in RescueNet Code Review – Enterprise edition.



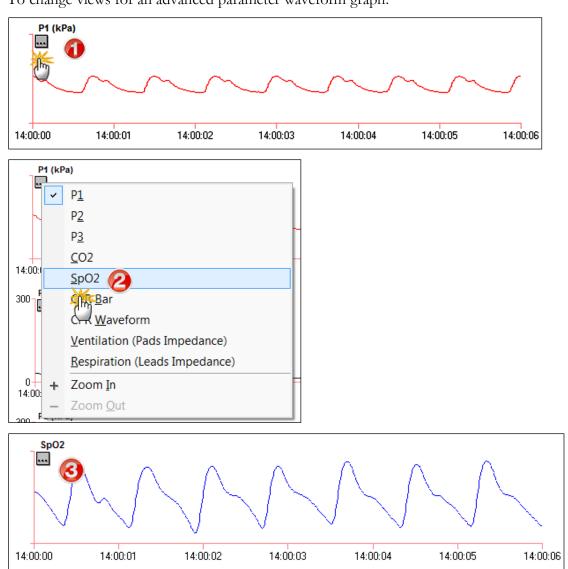
A) Midpoint

×.

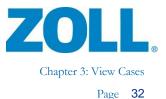
- B) Advanced parameters measurements at midpoint
- C) The lower graph displays the advanced parameters waveforms. If the data is available, the system can show as many as three advanced parameter waveforms at one time.

Note: When using Propaq M/MD or X Series, the numeric values change at 30-second intervals.



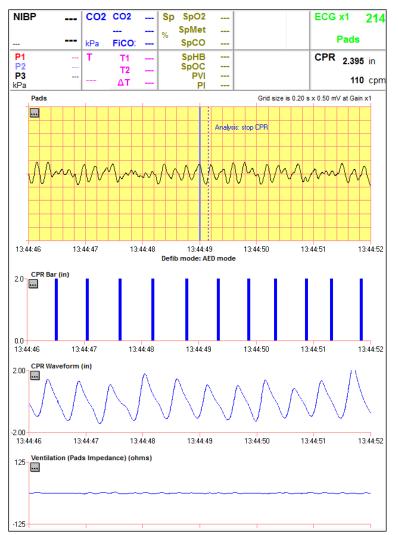


To change views for an advanced parameter waveform graph:



CPR (AED Plus/AED Pro/M Series/E Series/X Series/R Series

The Magnified ECG tab displays CPR compression depth and rate measurements along with the CPR Bar graph.



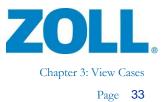
Note: CPR recording is contingent on the defibrillator software version and configuration.

See-Thru CPR[®] (filtered ECG)

If the defibrillator records See-Thru CPR[®] (filtered ECG), the system draws two waveforms on the ECG. As demonstrated in the above image, the system draws graph an unfiltered waveform on the top and a filtered waveform on the bottom.

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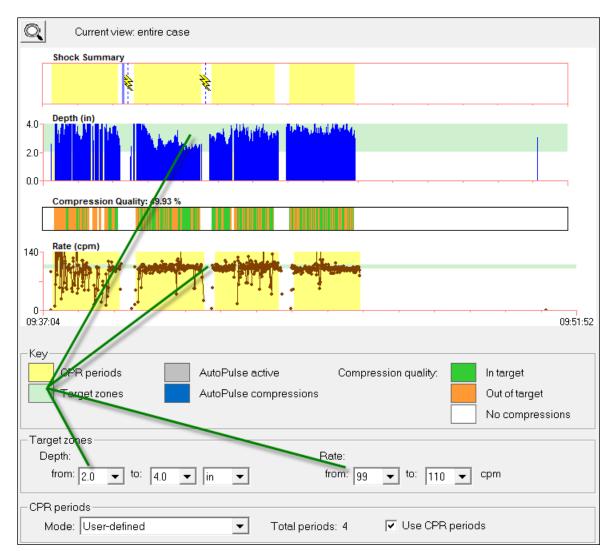


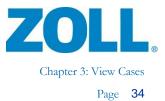
CPR Analysis

CPR Analysis is available for cases recorded on an AED Plus, AED Pro, AED 3, M Series, E Series, R Series, or X Series when CPR-D Padz was used. CPR Analysis also includes manual and AutoPulse compression information if the AutoPulse data is transferred via infrared.

Target zones

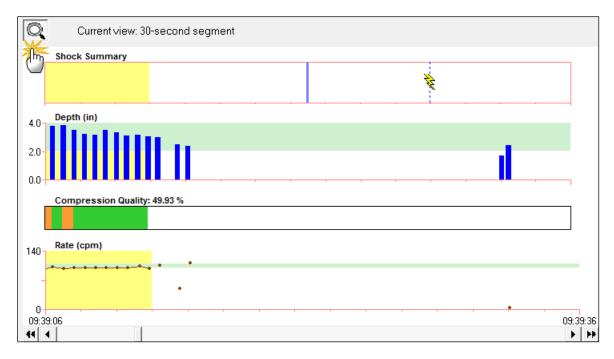
Target zones can be set to measure accuracy of compression rate and depth.

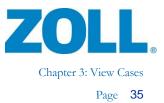




View

Click the magnifying glass to change the view from entire case to 30-second segment.



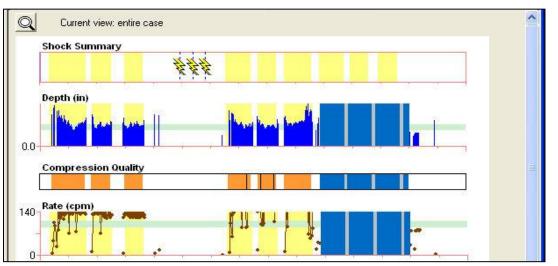


CPR periods

The CPR period defines which compression data to include in the CPR Summary. Compressions recorded outside of the defined CPR period are ignored. There are two ways to define the CPR periods in a case:

- **CPR prompt** automatic; defined by the number of defibrillator prompts for start/stop compressions that were recorded during the case.
- User-defined manual; defined by user drawn start/end CPR periods on the Entire ECG or Magnified ECG tabs.

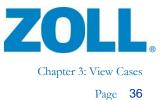
You can choose the mode for defining the CPR periods and whether to display the yellow boundaries on all graphs in Code Review. The system calculates the total number of boundaries (automatic or manually drawn) for you.

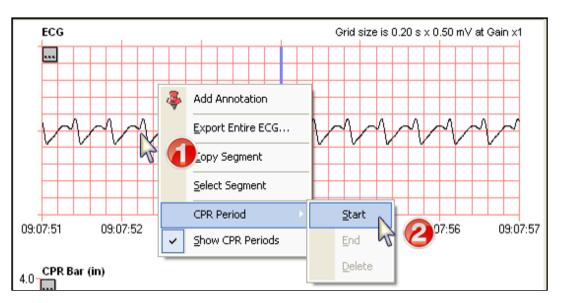


Notes:

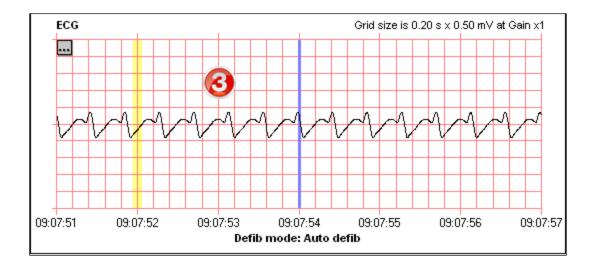
X

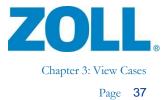
- For defibrillator running in 'Manual mode', the automatic boundaries (mode: CPR prompt) are defined by the first CPR-D Padz onto the last CPR-D Padz Off or Case End.
- Compression data originating from the AutoPulse is not included in automatically drawn CPR boundaries (mode: CPR prompt) and must be manually drawn in mode: User-defined.
- The system connects the plotted points on the Rate graph within the boundaries of a CPR period only.
- In AED mode, the R Series records CPR periods that users can view in Code Review using the 'CPR Prompt' mode on the 'CPR Analysis' tab. The R Series does not display CPR Periods when it is in 'Manual mode'.





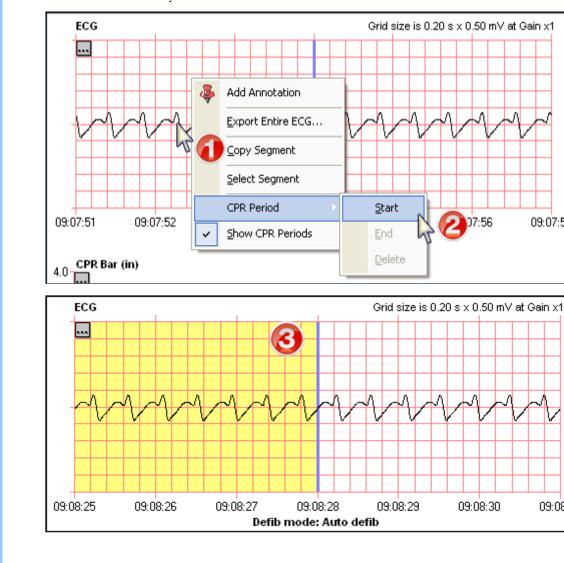
To create a user-defined CPR period on the Magnified ECG tab, first start a boundary:



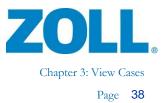


09:07:57

09:08:31



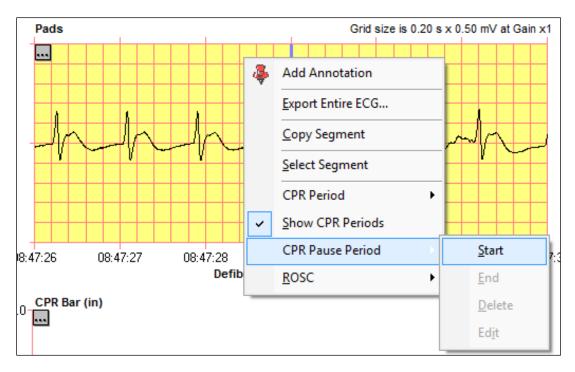
To end the boundary:



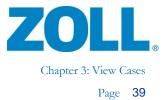
Drawing a CPR pause

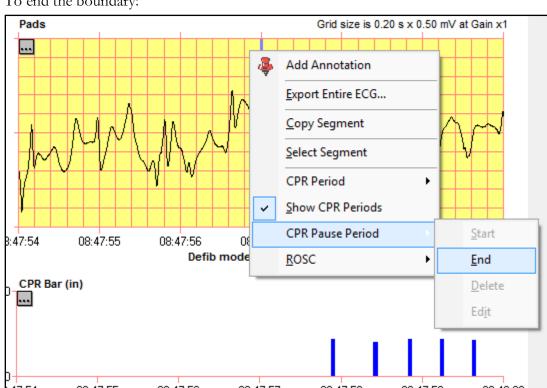
Sometimes there are gaps in the delivery of compressions during a CPR Period. To annotate these time periods of missing compressions, a CPR Pause Period can be drawn and a reason for the pause can be included.

To create a user-defined CPR Pause period on the Magnified ECG tab, first start a boundary:









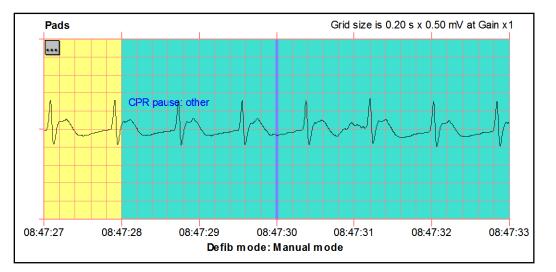
To end the boundary:

Select a CPR pause reason and click **OK**.

CPR Pause	CPR Pause
From: 🔃:47:28 📫 to: 08:47:57 🕂	From: 08:47:28 🔹 to: 08:47:57 🔹
Pre-shock pause	C Pre-shock pause
C Post-shock pause	C Post-shock pause
C Other:	Other:
· · · · · · · · · · · · · · · · · · ·	-
Annotation:	Unknown Intubation IV access Moving patient Rhythm check Switching compressors Other
<u>QK</u> <u>Cancel</u>	<u> </u>



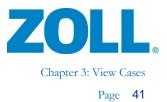
The system draws a blue-shaded segment that indicates the boundaries of the CPR Pause. The selected reason displays on the strip as Event Text.



Summary

The system displays an analysis of the defined CPR periods in the Summary section.

Key indicators			and the local of the
Manual			AutoPulse
Time to first compression:	00:00:13		
Average time to shock after compressions stopped:	00:00:17		
Average time to compressions after shock delivered:	00:00:05		
Mean compression depth:	3.20 in		
Mean compression rate:	114.28 cp	m	
Entire case			
Case duration:	00:05:30		
Time in CPR:	00:03:43	(67.58 %)	
Time not in CPR:	00:01:47	(32.42 %)	
CPR periods		-1.162 611	
Manual			AutoPulse
Time in compressions:	00:02:27	(65.92 %)	
Time not in compressions:	00:01:16	(34.08 %)	
Compressions in target:	3.76 %		
Depth:			
Standard deviation:	0.67 in		
Above target zone:	227	(85.34 %)	
In target zone:	35	(13.16 %)	
Below target zone:		(1.50 %)	
Rate:			
Standard deviation:	23.07 cpm	i	
Above target zone:	185	(69.55 %)	
In target zone:	61	(22.93 %)	
Below target zone:		(7.52 %)	



CPR Quality Calculation

The CPR Quality Calculations tab shows the physiologic waveform data timeline and the minute-byminute analysis of the CPR quality parameters. The system automatically annotates the timeline with markers to indicate compressions and ventilations when the recorded data is available. You can manually add ventilations as well as ROSC periods.

Timeline

Select which waveform to view on the timeline by right-clicking the context menu button on the first graph.

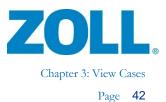
2.5 ECG (n	nV)	
	<u>E</u> CG	mount
	<u>C</u> 02	~~~ V ~ V ~ V
-2.5 17:16:	Ventilation (Pads Impedance)	7:17:01 1
	Respiration (Leads Impedance)	1.17.01
2.5 = +	Zoom <u>I</u> n	6666666
	Zoom <u>O</u> ut	moun
-25		

The system displays a full minute across the four physiological waveform graphs. You can select which minute of waveform data the system displays by using the Minute drop down list available at the top of the tab.

				-		
Minute: 2	💌 froi	m: Pads On (17:14:32)	•	Vent Source:	C02	-

You can also use the scroll bar arrows under the waveform graphs to move forward or backward by one minute or jump to the beginning or end of the case.

	M on de D. And on	<u> ባበስ አላሳት በመታቀ</u> ው	<u>nd dul con</u> o		A A Me
-2.5	17:16:20	17:16:23	17:16:26	17:16:29	17:16:32
•••					> >



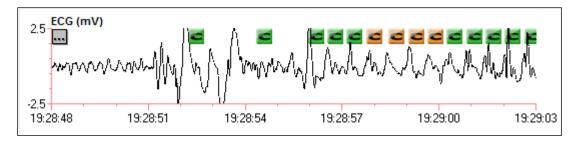
Annotating Compressions and Ventilations

The system produces compression markers from compression data stored by the defibrillators. When data is available, the system also annotates ventilation markers to indicate the impedance, derived from Pads or Leads, and/or breath detection from CO2. You can also manually annotate the timeline with ventilation markers.

C markers

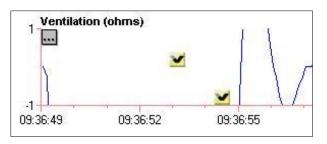
Compressions are marked with a bold C icon. Green indicates a compression with depth in range and orange indicates a compression with depth that is out of range. The depth range for compressions is set on the CPR Analysis tab. See the CPR Analysis tab, Target Zones, for instructions on setting the depth range target zone.

Note: You cannot manually add or delete a compression marker.



V markers

Ventilations/Respirations are marked with a bold V icon.



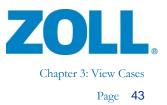
Note: The system places automatically generated ventilation markers higher on the timeline with manually annotated markers lower on the timeline.

The ventilation markers displayed are based on the user selected Vent. Source. The Vent. Source menu is available at the top of the tab and defaults to CO2.

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R

X



Minute: 2	▼ from: Power On (19:27:48)	▼ Vent Source:	Manual
			CO2 Pads Impedance Leads Impedance Manual

CO2: The system automatically annotates CO2 based ventilation markers when the CO2 data contains breath detection information.

Pads Impedance: The system automatically annotates Pads impedance based ventilation markers when Pads impedance data is available.

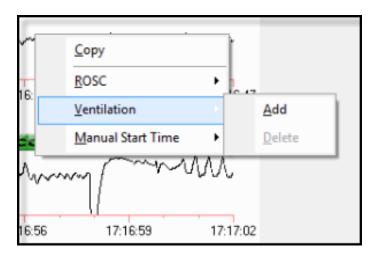
Leads Impedance: The system automatically annotates Leads impedance based ventilation markers when Leads impedance data is available.

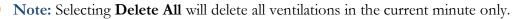
Manual: The system displays the user created ventilation markers on the timeline.

Note: Choosing a new Vent. Source causes the timeline to be redrawn showing the chosen set of ventilation markers.

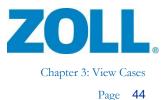
Adding, deleting, ventilation markers

Ventilation markers can be added or deleted by right clicking on the timeline and then choosing **Ventilation**, then **Add**, **Delete** or **Delete All**.



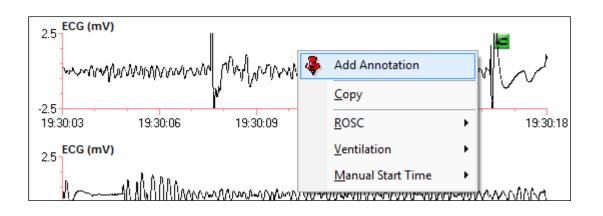


2

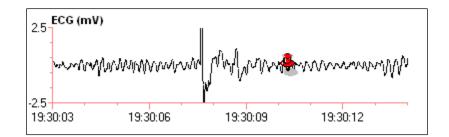


Adding annotations

You can insert an annotation event into the timeline by selecting *Add Annotation* in the context menu. For more information on how to add an annotation, see <u>Adding Annotations</u>.



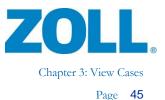
After saving the annotation, the event is marked with the push pin icon.



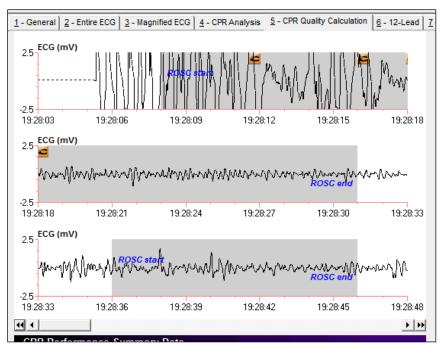
Adding ROSC periods

Draw ROSC boundaries with a simple right-click at a point in time on the graph or with a more precise method, by manually entering a specific time.





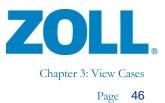
Create a ROSC Start event with a right-click on the graph at the point in time to begin the ROSC boundary; in the context menu, select **ROSC**, **Start**. Next, create a ROSC End event with a right-click on the graph at the point in time to end the ROSC boundary. In the context menu, select **ROSC**, then **End**. The ROSC period is shaded as shown below.



Alternately, you can enter the ROSC Start and ROSC End times manually by right clicking anywhere on the graph and clicking **ROSC**. Select **Enter Start Manually** or **Enter End Manually** as appropriate.

Enter Time	Enter Time
ROSC start time: 12:30:38 0K	ROSC end time: T::31:05 : DK Cancel

You can delete any user created ROSC period via the context menu by right clicking anywhere within the ROSC period drawn on the graph and clicking **ROSC**, then **Delete**.



CPR Performance Summary Data

Use the CPR Performance Summary table for minute-by-minute analysis of the CPR data after you have made the desired edits for compressions, ventilation, and or ROSC periods to the timeline.

6	Export													
Minute	Sec. w/o Comp.	Vents	Vents CO2		2000 CO.	1111-0-00	Rate	1.1.1.1.1.1.1.1.1	Comp. Fraction	120000000	Comp. In Target Depth	Comp. In Target Rate	Comp. in Target	Mean CO2
1	25	0	18	0	63	2	108	472	58.3	0	12.70	36.51	11.11	3
2	37	0	28	0	39	3	101	671	38.3	0	0.00 %	17.95	0.00 %	3
3	31	0	28	0	52	3	107	534	48.3	0	11.54	36.54	0.00 %	3
4	35	0	30	0	42	3	100	621	41.6	0	2.38 %	7.14 %	0.00 %	3
5	28	0	11	0	59	3	110	631	53.3	0	1.69%	5.08 %	0.00 %	3

Note: Click on a row to display the selected minute the same as if you selected the minute from the dropdown at the top of the tab.

Minute:	Minute count from start time
Sec w/o Comp:	Seconds in this minute without compressions
Vents:	Manually marked vent count for minute
Vents CO2:	Ventilations reported from CO2 monitoring (Breath detection)
Vents Leads:	Respirations detected from leads impedance signal
Comp. Count:	Compression count for minute
Mean Comp. Depth:	Depth: Average compression depth
Comp. Rate:	Rate: Average compression rate
Mean Release Velocity:	Average over the minute shown in millimeters per second.
Comp. Fraction:	Percentage of minute with compressions
Unanl. Sec.:	Un-analyzable Seconds, the number of seconds that were not analyzed
Comp. In Target Depth:	Percentage of compressions in target depth for minute
Comp. In Target Rate:	Percentage of compressions in target rate for minute



Choosing the Start Time for Minute-by-Minute Analysis

You can choose to set the start time for the minute-by-minute analysis to Power On, Pads On, or manually set. When you change the start time selection, the system recalculates the minute-byminute results. The system automatically calculates and provides the Pads On and Power On times from the case data in the dropdown.

Minute:	1	▼ from	Pads On (09:36:49)	-
2.5	CG (m	V)	Power On (09:36:39) Pads On (09:36:49)	
-			Manual start (09:36:39)	

Creating a manual start time

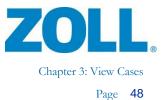
To set the manual start time, right click on the timeline and choose *Manual Start Time*, then *Set*. The system adds the Manual start selection to the start time list as shown above.

www.www.	ww	mmmm	~~	mmmm
2.5 15:12:46 15:12:49	4	Add Annotation		5 15:12:
2.5 1 ECG (mV)		<u>С</u> ору	Ĩ	
www.www.	۰,	<u>R</u> OSC <u>V</u> entilation	•	www.
2.5		Manual Start Time		Set
15:13:01 15:13:04	-10.	10.07 10.1	υ.	Clear 3:

Print/Export CPR Performance Summary Data

You can save and/or generate a report of the columns shown in the CPR Performance Summary Data.

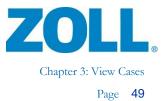
Export: Click the Export. icon and choose a file location. The system exports the data to a .xml file.



Print: There are two ways to generate a report:

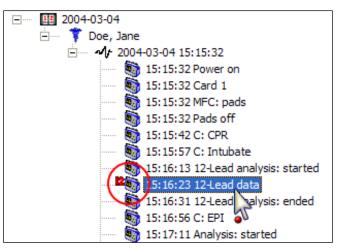
- 1. On tab 5, click the Print icon index the CPR Performance Summary Data heading, choose a local network printer, and click **OK**.
- 2. On the navigation bar:
 - a. Click File
 - b. Hover over Print and Case
 - c. Click CPR Performance Summary Data
 - d. On the Print Setup window, choose a local printer and click OK

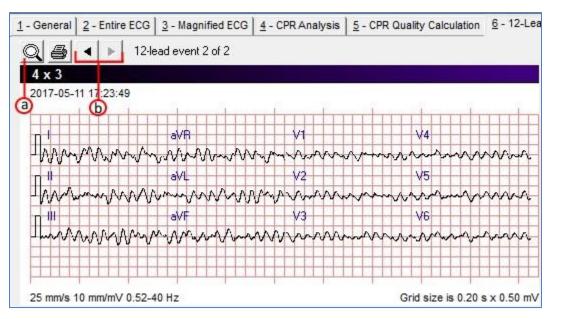
File	Fit Tools Help			
	<u>U</u> pload			rd þr
2	<u>O</u> pen		Ctrl+O	- CPR Analysis 5 - C
8 7	Searc <u>h</u>		Ctrl+F	
G	Search CaseReview			
	Close		Ctrl+W	
	Close <u>A</u> II			
۲	Save		Ctrl+S	13:30:58 13
	Delete			110
9	Print		12-Lead Events	<u>C</u> ase
	Rena <u>m</u> e		HIPAA Disclosure	Aggrega 2
	Send <u>T</u> o		Incident Log	V
	Expo <u>r</u> t		Snaps <u>h</u> ots	13:31:13 13
	1 P:\CodeData\Case Review\Demo Cases\20120716133049_00011330.zol		<u>C</u> PR Analysis Summary	13.31.13 13
	2 P:\CodeData\QA\Defib Case Library\Cases with _\CPR Multi Periods\201501		CPR Performance Summary Data	acceded
	3 P:\CodeData\Case Review\Demo Cases\20160216123357_AX14J000173.zol		NIBP History Table	1AAMMAAAA
	4 P:\CodeData\Case Review\Demo Cases\20160211143639_AX14J000173.zol		<u>S</u> trips	VVVVVVVVV
	5 P:\CodeData\Case Review\Demo Cases\20160224094040_AX14J000173.zol		Vital Trends <u>G</u> raph	
	E <u>x</u> it	_	Vital Trends <u>T</u> able	13:31:28 13



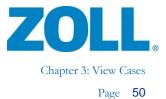
12-lead

The 12-lead tab is available in RescueNet Code Review - Enterprise Edition.





- a) Zoom in/out
- b) View previous/next 12-lead event in currently selected case



11100		nent	_														
	PA	PPA	QA	QD	RA	RD	SA	SD	RPA	RPD	SPA	STJ	STM	STE	ΤA	TPA	
V1	34	-48	0	0	24		1098	129	0	0	0	4	102	268	278	0	
V2	48	-34	0	0	53	24	1020	122	0	0	0	4	83	239	249	0	
V3	78	0	0	0	112	28	634	118	0	0	0	-10	9	141	161	0	
V4	92	0	0	0	141	30	449	86	43	30	0	-5	9	92	112	0	
V5	97	0	0	0	156	37	78	27	234	82	0	-5	-69	-30	0	0	
V6	97	0	0	0	532	146	0	0	0	0	0	0	-88	-137	-136	0	
I.	170	0	0	-		127	0	0	0	0	0	-152	-381	-308	-307	0	
aVL	136	0	0	0	1010	131	0	0	0	0	0	-54	-206	-196	-195	0	
Ш	87	0	0	0	839	111	0	0	0	0	0	-196	-347	-220	-219	0	
aVF	-29	24	0	0	292	69	214	77	0	0	0	-118	-157	-69	-68	0	
Ш	-102	0	747	146	0	0	0	0	0	0	0	-44	34	87	92	0	
aVR	-122	0	1059	125	0	0	0	0	0	0	0	170	361	263	263	0	
	rpre eart r		on 61				QI		uratio T/QT	1.1	171 m 374/3	10111	ns				
PR	inter	val:	127	ms				P-R-	T axe	es: •	175 -	157	120				
rial rh omple m lea	nythm exes	with verse	ed (inv	siona /erteo	l vent d Par	nd QF	RS in]		nplex	es wil	h oc	casio	nal su	iprav	entricu	ilar premature

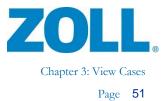
Cabrera Format

To change the display of the 12-Lead 4x3 to Cabrera format on the 12-Lead tab, Go to Tools > Options > View and select Display 12-Leads in Cabrera format.

Options X								
Data Card Reader Serial Bluetooth Network View System CaseReview								
Select event types to display in case tree:								
Events								
Visible data views								
General								
Interee ECG								
✓Magnified ECG								
I 2-Lead I Snapshot								
✓ Prehospital Utstein								
Display 12-Leads in Cabrera format								
OK Cancel Apply								

Note: This setting is for X Series only. If an E or M Series recorded a 12-Lead in standard format, it will still display in standard format on the 12-Lead tab.

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Closing Cases

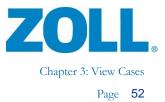
When you exit RescueNet Code Review, cases are automatically closed.

You can manually close an open case.

E 11 2004-03-04	
🚊 🖤 🌹 Doe, Jane	
 2004-03-04 15:15:32	
15: 32 Powe	Close
5:1)31 d	
5:15:32 MFC	Add Annotagon 2
5:15:32 Pads	- ··· 2
🧓 15:15:42 C: Cl	Unlink
🧓 15:15:57 C: In	
🧕 15:16:13 12-L	Send To
15:16:23 12-L	Mark as Viewed
🧓 15:16:31 12-L	Mark as Viewed
🧓 15:16:56 C: EF	Mark as <u>N</u> ot Viewed
🧓 15:17:11 Anal;	

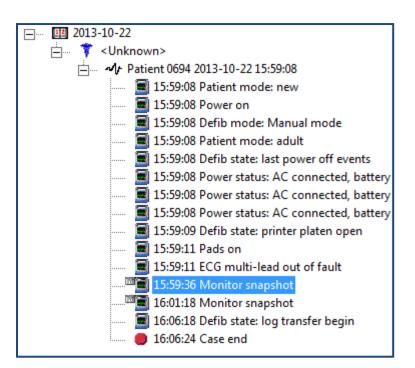
You can also manually close all open cases.

File	Edit	Tools	Help
	New		
	<u>U</u> ploa	d	
È	<u>O</u> pen		
9	Searc	<u>h</u>	
$\overline{\mathbf{G}}$	Searc	h Case <u>F</u>	<u>R</u> eview
	<u>C</u> lose		
	Close	All	



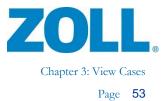
Snapshot

The Snapshot tab is available in RescueNet Code Review - Enterprise Edition. This tab displays snapshots recorded by the X Series.





Use the provided buttons to print the snapshot(s), zoom in/out, and view the previous or next snapshot.



Closing Cases

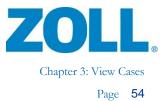
When you exit RescueNet Code Review, cases are automatically closed.

You can manually close an open case.

E III 2004-03-04	
🗄 🗝 🌹 Doe, Jane	
15: 32 Powe	Close
🧠 🚳 15:19:31Ud 🗆	
🦣 15:15:32 MFC	Add Annotager 2
🥘 15:15:32 Pads	
🧓 15: 15: 42 C: Cl	Unlink
🥘 15: 15: 57 C: In	
🧓 15:16:13 12-L	Send <u>T</u> o
200 15:16:23 12-L	Mark as Viewed
🧓 15:16:31 12-L	Mark as viewed
🧓 15:16:56 C: EF	Mark as <u>N</u> ot Viewed
🧓 15:17:11 Anal,	

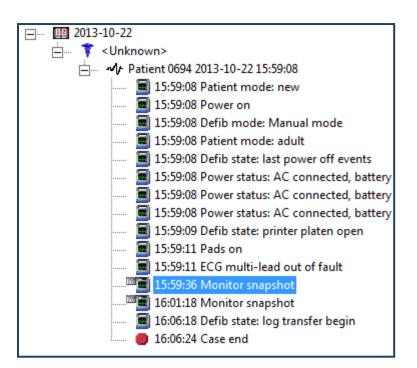
You can also manually close all open cases.

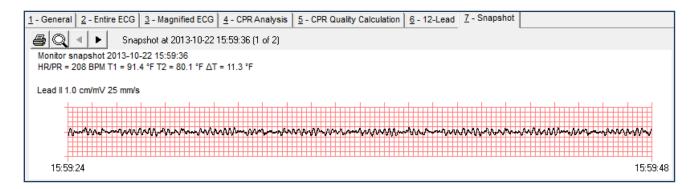
File	Edit	Tools	Help		
	<u>N</u> ew			۲	🖻 😣
	Uplo	ad		۲	
Ē	Oper	٦	Ctrl+O		3 22:22:14
S1	Sear	c <u>h</u>	Ctrl+F		
	⊆lose	e	Ctrl+W		0 10:59:02
	Close	e <u>A</u> ll			
	<u>S</u> ave		Ctrl+S		



Snapshot

The Snapshot tab is available in RescueNet Code Review - Enterprise Edition. This tab displays snapshots recorded by the X Series.





Use the provided buttons to print the snapshot(s), zoom in/out, and view the previous or next snapshot.



Chapter 4: Documenting Cases

Reviewing and Adding Information

To review and make changes to code information, download or open the case. To quickly search for a case that a user previously downloaded, combine the date range and, optionally, other search parameters.

Saving Changes

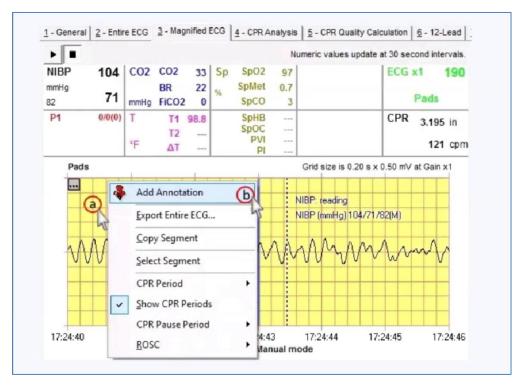
Whenever there are unsaved changes, the Save button is enabled.

- At any time, you can click the Save button to manually save changes.
- If you close a case with unsaved changes, a message asks if you want to save them.

Note: When you move from viewing one case to another, unsaved changes in the first are preserved, but not saved. If you return to the original case, your changes will still be there. However, if you close that case without saving, your changes will be lost.

Adding Annotations 🛃

1. On the magnified ECG, right-click on the time you want to add an annotation.



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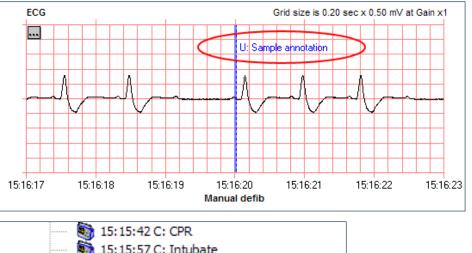
2

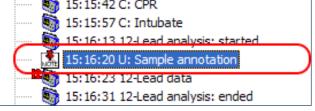


2. Add the title and optional text.

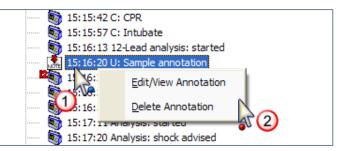
Annotate Case	×
Time: 2004-03-04 15:16:20 Title:) 0
Sample annotation	
Optional text	

3. The system displays the annotation title on the ECG and in the case tree.





4. To edit, view, or delete an annotation:





Code Record

The Code Record tab is available in the RescueNet Code Review - Enterprise edition.

Responder and	Transport		
Responder			
	Vehicle:		
	Vehicle type:	•	
	Crew leader:		
Transport			
	Vehicle:		
	Crew leader:		
R	eceiving hospital:		
Resp	onsible physician:		

Events	
Times	
Call received:	🗖 2004-03-04 15:15:32 📑 🗖 Unknown
Dispatched:	🗖 2004-03-04 15:15:32 📑 🗖 Unknown
At scene:	🗖 2004-03-04 15:15:32 📑 🗖 Unknown
At patient side:	🗖 2004-03-04 15:15:32 📑 🗖 Unknown
	,
- Collapse	
Occurred before ambulance arrival:	<u> </u>
Location:	
- Initial Status at Seans	
Intial Status at Scene	
Unconscious:	
	x
Unconscious:	x
Unconscious: No breathing: No pulse:	v v
Unconscious: No breathing: No pulse: EMS Treatment at Scene	
Unconscious: No breathing: No pulse: EMS Treatment at Scene Defibrillation:	Yes T
Unconscious: No breathing: No pulse: EMS Treatment at Scene Defibrillation: Number of shocks:	
Unconscious: No breathing: No pulse: EMS Treatment at Scene Defibrillation: Number of shocks: Number of resuscitation attempts:	
Unconscious: No breathing: No pulse: EMS Treatment at Scene Defibrillation: Number of shocks:	
Unconscious: No breathing: No pulse: EMS Treatment at Scene Defibrillation: Number of shocks: Number of resuscitation attempts:	

Outcomes At Discharge	
Alive:	
Overall performance category #:	_
Cerebral performance category #:	_
One Year After Discharge	
Alive:	_
Overall performance category #:	_
Cerebral performance category #:	_
Time of death:	□ 2004-03-04 □ Unknown □ 15:15:32 □ □ Unknown



Prehospital Utstein

The Prehospital Utstein tab is available in RescueNet Code Review - Enterprise edition.

Accurate Utstein reports depend on complete data. As you begin capturing prehospital Utstein data for a case, additional field labels might be displayed highlighted red to indicate that they are also required. As long as the prehospital Utstein data is incomplete for a case, the tab title is displayed red. (Completeness is only measured for confirmed cardiac arrest cases.)

<u>1</u> - General	<u>2</u> - Entire ECG	3 - Magnified ECG
<u>4</u> - CPR Analysis	5 - Code Record	<u>6</u> - Prehospital Utstein
Utstein Info		
Confirmed cardiac arrest:	Resuscitation attempted	▼
Etiology:		-
Witness:		•
Initial rhythm:		•
Bystander CPR:		•
Return of Spontaneous Circulation:		•
Admission:		•
Discharge:		•
Patient status at one year:		•

When you have captured complete Prehospital Utstein data, the tab title and all labels are black.

1 - General	2 - Entire ECG	3 - Magnified ECG
4 - CPR Analysis	5 - Code Record	<u>6</u> - Prehospital Utstein
Utstein Info		
otatem milo		
Confirmed cardiac arrest:	Resuscitation attempted	•
Etiology:	Cardiac	-
Witness:	Arrest not witnessed	-
Initial rhythm:	Asystole	•
Bystander CPR:	Present	•
Return of Spontaneous Circulation:	Any ROSC	•
Admission:	Admitted to hospital	•
Discharge:	Currently unknown	•
Patient status at one year:		-



Note: You can still save a case with incomplete Prehospital Utstein data (in that case, a message notifies you of the incompleteness). To ensure accurate reports even if you have cases with incomplete Utstein data, when you search for cases to include in the Utstein report, configure your search criteria to include cases that have complete Utstein data only.

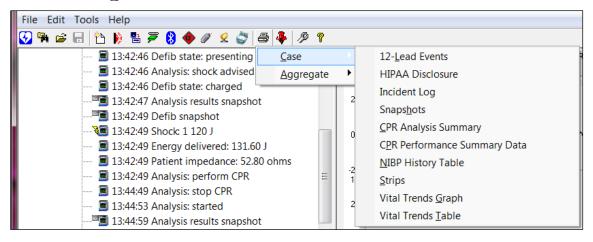
Folder to search: C:\Program Files (;	x86)\ZOLL Data Systems\ZDData\		Browse	Search
Also search su	bfolders			Cancel
Search using any combination of the	se criteria:			Reset Criteria
 Search in this date range: 	10/ 4/2016 💌 to: 5/10/2017 💌]		
Search for these specific events:	Events			
Search for this viewed status:	Not viewed 👻			
Search for this text:	In the		Patient name	
		C	Run number Patient ID / MR number All fields	
Custom guery:	Utstein Data Complete			

2

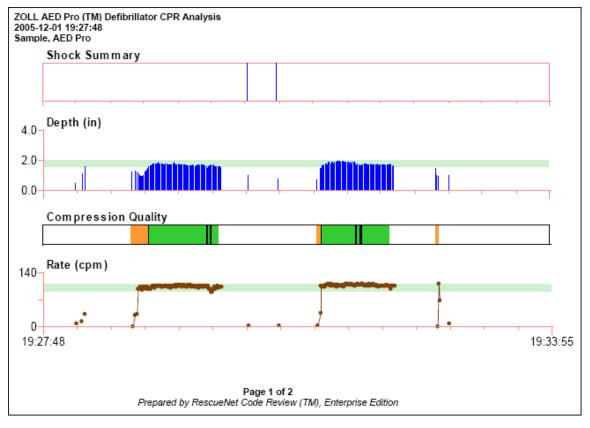


Chapter 5: Reporting

Case Reports



CPR Analysis Summary Report

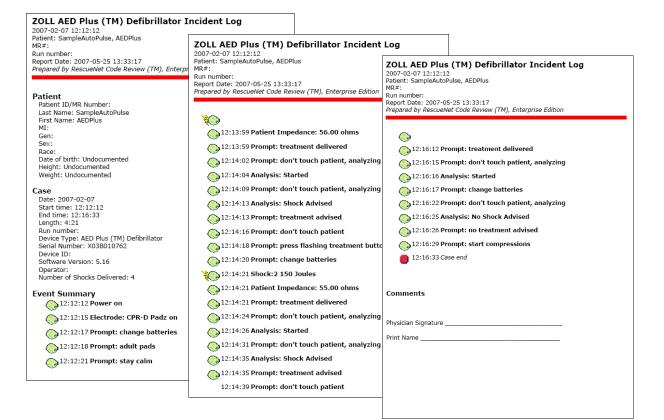




Page

ZOLL AED Pro (TM) Defibrillator CPR Ana 2005-12-01 19:27:48 Sample, AED Pro	alysis		
Key Indicators Time to first compression: Average time to shock after compressions stopped: Average time to compression safter shock delivered: Mean compression depth: Mean compression rate:	1.67 in		AutoPulse
Entire Case			
Case duration: Time in CPR: Time not in CPR:	00:03:36	(58.86 %) (41.14 %)	
CPR Periods			
Manual Time in compressions: Time not in compressions: Compressions in target:	00:01:39	(54.17 %) (45.83 %)	AutoPulse
Depth (target zone from 1.5 to 2 in):			
Standard deviation: Above target zone: In target zone: Below target zone:	0 174	(0.00 %) (87.44 %) (12.58 %)	
Rate (target zone from 90 to 110 CPM):			
Standard deviation: Above target zone: In target zone: Below target zone:	4 185	(2.01 %) (92.98 %) (5.03 %)	
Prepared by R	Page 2 of 2 RescueNet Code Revie) w (TM), Enterprise Edition	

Incident Log





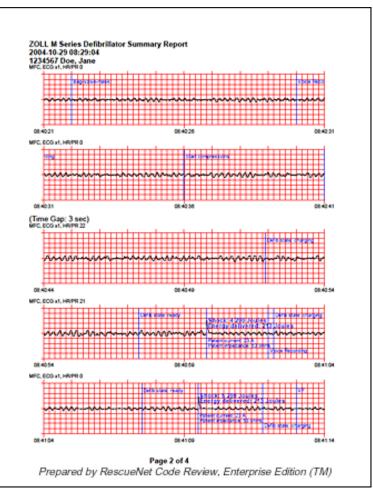
Strips

For strips, you can print a full disclosure (for entire case or a specific time range) or an event summary report (for all events or selected events).

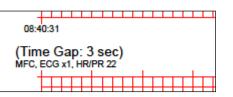
int Strips				
Report type -				
C Full disclos	sure (defibrillator record	i only)		
E By time	range: 2017-05-11	17:20:15	o: 2017-05-11 17:25:45	
• • • • • • • • • • • • •	Jeon com	11.20.10	0. 12011 00 11 11.20.10	
Event sum	imary			
Available (events:		Selected events:	
SpHB ala SpMET a SpO2 ala SpO2 set SpO2 ala	settings atus a settings state settings t arm settings arm settings alarm settings	^ < >> «	Analysis: check patient Analysis: shock advised Analysis: started Energy delivered Shock	
Dist.	elected events summa			
C Current se			ed segment:	
Included wave	eforms			
ECG1	✓ C02		☑ SpO2	
ECG2	CPR bar		✓ Ventilation	
🗹 ECG3	CPR wavefor	m 🔽 P3	🔽 Impedance Respiration	
🗹 ECG4				
Display ever	Later als			



The Event Summary report displays at least 15 seconds before and after each instance of the selected events.



If there is a gap of no activity for the selected events, the system displays a time gap notification.



R

Note: RescueNet Code Review - Enterprise edition includes these additional case reports:

- 12-Lead Events •
- NIBP History Table .
- Vital Trends Table
- Vital Trends Graph •



Aggregate Reports

Aggregate reports are available in RescueNet Code Review - Enterprise edition.

1. Select an aggregate report to print.

File Edit Tools Help			
🚱 🎭 😅 🕞 🎦 👂 📇 🐬 🚷 🚸 🖉 😒 🎒 🐥 🥬 🔋			
I 13:42:46 Defib state: presenting	►	7 - Snapshot <u>8</u> - Code Reco	
I 13:42:46 Analysis: shock advised Aggregate	×	CPR Analysis Summary	
13:42:46 Defib state: charged Image: state in the sta	2	EMS Frequency by Collapse Location	
13:42:49 Defib snapshot		EMS Resuscitation Summary	
	0	Pre-hospital Utstein	
🗐 13:42:49 Energy delivered: 131.60 J		Search Results	

2. The Search for File to Include in Report dialog box automatically opens. Select any combination of criteria (a), and then click Search (b).

Folder to search:	C:\Program Files\	Pinpoint Tech	nologies, Inc\ZDData\	Browse	Search
	Also search su	ubfolders			
	Also search u	nsubmitted Cod	leNet Writer files location		
Search using any (combination of the	ese criteria:			Reset criteria
Search in this	date range: F	From: 01/01/2	2003 💌 to: 11/30/20	104 🔻	
	se specific events				
Search for this	: review status:	Not yet viewed			
Search for this			In these Colds	C Patient name	
Search for this	rosoc		in diese lielus.	C Run number / CPR number	
				C Patient ID / MR number	
				 All fields 	
Custom query:	30 Joule Shock	: Only			
			Last Name	Bun / CPB Number	Patient ID / MB Number
Date	Start Time F	irst Name			Fatient ID 7 Min Number
2004-11-10	10.59.02	irst Name			Patient ID 7 Min Number
2004-11-10 2004-08-13	10.59.02 19:40:47	inst Name			Patient ID 7 Min Number
2004-11-10 2004-08-13 2004-08-13	10.59:02 19:40:47 19:40:47	rrst Name			Paterix ID 7 Min Humber
2004-11-10 2004-08-13 2004-08-13 2003-06-23	10.59.02 19.40.47 19.40.47 09.05.50				Patent ID 7 Min Number
2004-11-10 2004-08-13 2004-08-13 2003-06-23 2003-06-23 2003-06-23	10.59.02 19.40.47 19.40.47 09.05.50 09.05.50 09.07.51				Paterix ID 7 Min Number
2004-11-10 2004-08-13 2004-08-13 2003-06-23 2003-06-23 2003-06-23 2003-06-23 2004-10-28	10.59.02 19.40.47 19.40.47 09.05.50 09.05.50 09.07.51 16.57:35				Paterk IU / Min Number
2004-11-10 2004-08-13 2004-08-13 2003-06-23 2003-06-23 2003-06-23 2003-06-23 2004-10-28 2004-11-04	10.59.02 19.40.47 19.40.47 09.05.50 09.05.50 09.07.51 16.57:35 11:08.05				
2004-11-10 2004-08-13 2003-06-23 2003-06-23 2003-06-23 2004-10-28 2004-10-28 2004-11-04	10.59.02 19.40.47 19:40.47 09:05:50 09:07:51 16:57:35 11:08:05 11:10:02				
2004-11-10 2004-08-13 2003-06-23 2003-06-23 2003-06-23 2004-10-28 2004-10-28 2004-11-04	10.59.02 19.40.47 19.40.47 09.05.50 09.05.50 09.07.51 16.57:35 11:08.05				
2004-11-10 2004-08-13 2003-06-23 2003-06-23 2003-06-23 2004-10-28 2004-10-28 2004-11-04	10.59.02 19.40.47 19:40.47 09:05:50 09:07:51 16:57:35 11:08:05 11:10:02)	tches out of 40 cases		
2004-11-10 2004-08-13 2003-06-23 2003-06-23 2003-06-23 2004-10-28 2004-10-28 2004-11-04	10.59.02 19.40.47 19:40.47 09:05:50 09:07:51 16:57:35 11:08:05 11:10:02)	tches out of 40 cases		
2004-11-10 2004-08-13 2003-06-23 2003-06-23 2003-06-23 2004-10-28 2004-10-28 2004-11-04 2004-11-04	10.59.02 19.40.47 19:40.47 09:05:50 09:07:51 16:57:35 11:08:05 11:10:02)	tches out of 40 cases		

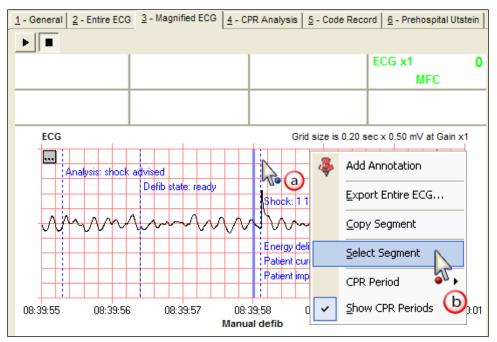
3. Cases that match your criteria display. Select the cases that you want included on the report (c), and click Run Report (d).

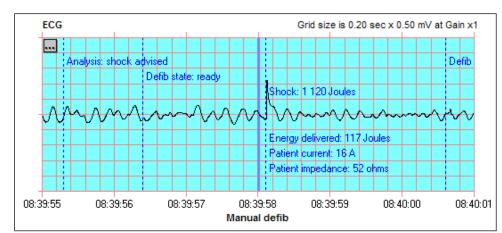
The report displays in a browser window.



Printing ECG Segments

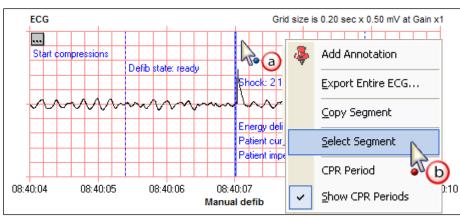
1. Right-click to select a segment you want to print.





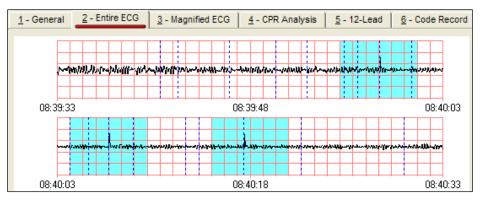
2. The selected segment highlights.

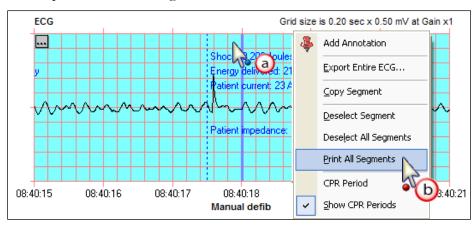




3. Optionally, you can select additional segments anywhere on the ECG.

4. You can view all selected segments on the Entire ECG tab.

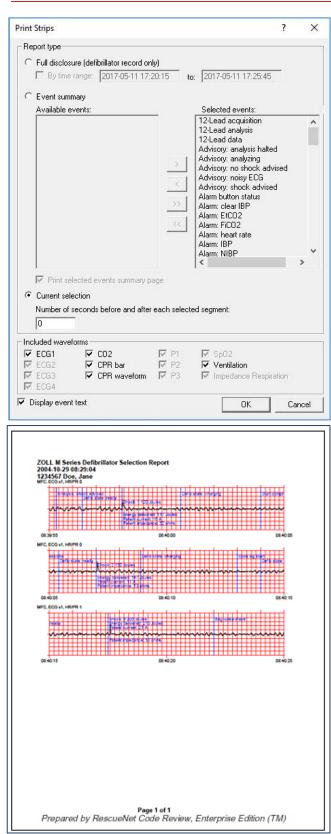




5. To print all selected segments:

6. Select Current selection option.







<u>Chapter 6: Advanced</u> Mark Cases Viewed/Not Viewed

To manually control the status:

□···· III 2004-01-05 □···· ↑ Name, Patient □···· ↑ 2004-01-05 17:04	:02	
The CO		Close
		Add Annotation
		Unlink
		Send To
		Mark as Viewed
		Mark as Not Viewed
	_	2

Once you manually change the status to Not Viewed, it remains in that status until:

- You manually change it to Viewed.
- You close it, and then reopen it.
- You view another case, and then return to viewing the one with the manually changed status.

You can also force status changes to be manual.

Options			X
Data Card Reader Serial Blu Default data files location: Ignore test cases Upload all AED Pro files (incl Don't automatically mark cas Clude audio prompts Include extended audio p Show confirmation dialog whe Show warning when saving in Upload all AutoPulse deploy	uding previously i es as viewed prompts en linking and unli complete Utstein	uploaded files) nking cases data	
	ОК	Cancel	Apply



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V

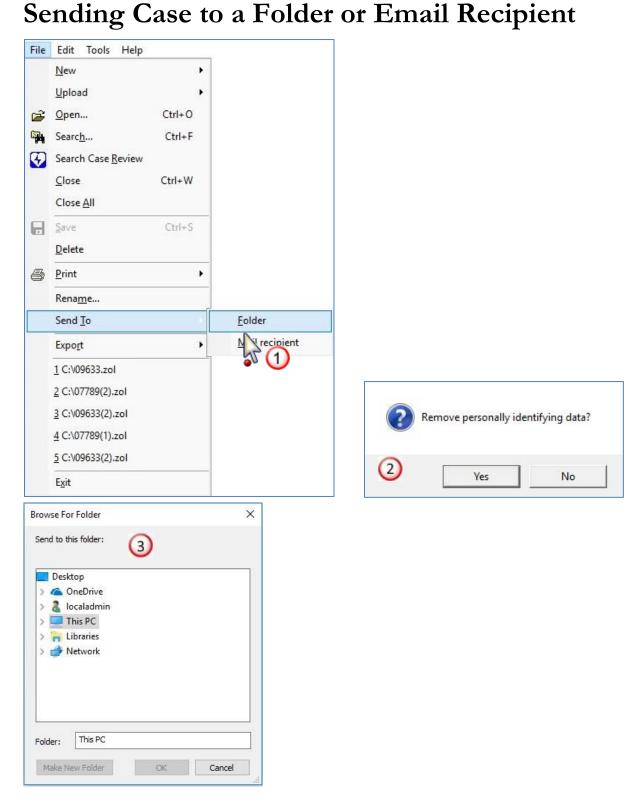
Renaming Cases

Cases are stored as .zol files. By default, the files are named with the date and time of the defibrillator when the case was created, plus the serial number of the defibrillator (if available), for example, 20060328132727_00000017.zol.

You can rename a case file and, optionally, save the renamed file in another location.

File	Edit Tools Help	1			
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u>N</u> ew <u>U</u> pload <u>O</u> pen Searc <u>h</u> Search Case <u>R</u> eview <u>C</u> lose <u>Close All</u> <u>S</u> ave <u>D</u> elete		New Upload Open Search Search Case Review Close Close All Save Delete Print		
8	Print Rena <u>m</u> e		Rename 1		
← Org	a second s	sk (C:) ame	> Temp 2 ~ ひ	Search Temp Date modifie	ted Type
	Music Pictures Videos Local Disk (C:) Network		No items matc	h your search.	
			0		
	File name: new_file_n				
	Save as type: ZOLL Data	Files (*.:	col)		
				1	
^ H	lide Folders			Save	Cancel

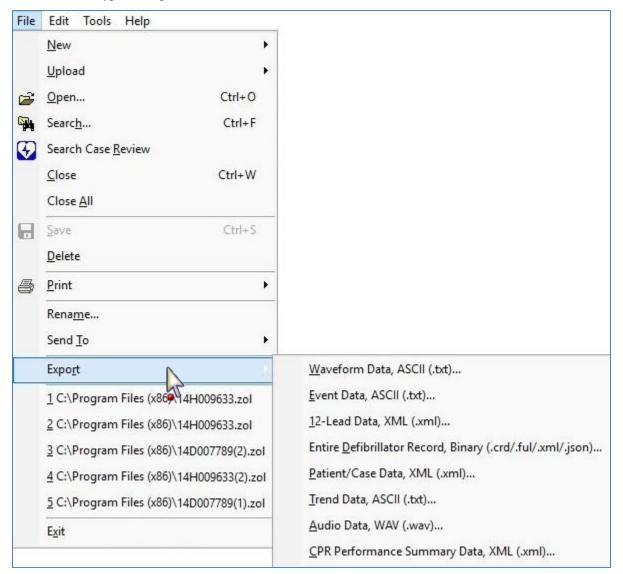






Exporting Data

- 1. Open the case you want to export.
- 2. Select the type of export.





Inserting Defibrillator Records into Cases

If you have a case that does not have a defibrillator record, you can insert one into it.

- 1. Open the case.
- 2. Select the source of the defibrillator record.

Edit	Tools Help			
4	Annotation	🖉 🙎 🍣 🚭 👂	Ŷ	
	Defibrillator	Adjust Power On Time		
	AutoPulse	Insert Defibrillator Record 🔹 🕨	D	From Infrared
	<u>U</u> nlink	<u>R</u> emove Defibrillator Record		From <u>C</u> ard Reader
	Document <u>H</u> IPAA Disclosure		7	From <u>S</u> erial
	Mark as Viewed		8	From Bluetooth
	Mark as <u>N</u> ot Viewed		2	From Card <u>F</u> ile
_	Hantas <u>H</u> ot Honsa]	•	From Compact Flash
			Ø	From <u>U</u> SB
			Q	From Net <u>w</u> ork



Inserting AutoPulse Records into Cases

If you have a case that does not have an AutoPulse record, you can insert one into it.

- 1. Open the case.
- 2. Select Insert AutoPulse Record and place the AutoPulse in upload mode.

4	<u>A</u> nnotation	+	2	3	84	19 9
	<u>D</u> efibrillator	•				
	AutoPulse		ð	Inser	t AutoPulse	Record
	Unlink			<u>R</u> em	ove AutoPu	Ilse Recor
	Document <u>H</u> IPAA Disclosure					
	Mark as Viewed					
	Mark as Not Viewed					

Documenting HIPAA Disclosure

RescueNet Code Review™, Enterprise Edition					
File	Edit	t Tools Help			
😧 ⁶	4	Annotation			
	Defibrillator		9		
		AutoPulse • d			
		<u>U</u> nlink			
		Document <u>H</u> IPAA Disclosure	I		
		Mark as Viewed			
		Mark as <u>N</u> ot Viewed	2		



Document HIPAA Disclosu	re		X
NPP delivered to the patie	nt 😢		OK Cancel
a 🕹 🌶 🤉			
g <u>C</u> ase	12-Lead Events		R
d <u>Agg</u> regate	HIPAA Disclosure	^	-

	12-Lead Events
	HIPAA Disclosure
2	Incident Log 💦 💙
1	Snaps <u>h</u> ots
0	CPR Analysis Summary
1	CPR Performance Summary Data
_	NIBP History Table
1	<u>S</u> trips
2	Vital Trends <u>G</u> raph
	Vital Trends Table
	2 0 -2 1 2

HIPAA Disclosure

2004-03-04 15:15:32 Run number/CPR number: Report Date: 2004-11-19 14:50:17

Patient

Name, Patient MR#: Sex: Race: Unknown Date of birth: Unknown Height: Weight: Undocumented

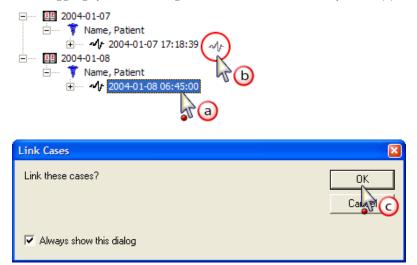
HIPAA Disclosure Notes

Time	User	Details
2004-03-04 16:36:14	tcarnes	User viewed case.
2004-03-05 14:17:02 698	tgolias	User viewed case.
2004-03-05 14:50:09 589	tgolias	User entered note: NPP delivered to patient



Linking Cases

1. Drag the case you want to link (a) to the case you want to link it to. As you're dragging, you'll see a lighter version of the case symbol (b).



2. The system displays linked cases with a double caduceus symbol followed by the number of linked cases in parentheses.

□ 2004-01-07 □ (2) Name, Patient □ (2) Name, Patient	

Unlink Linked Cases

□ 12 2004-01-07 □ 12 (2) Name, Patient □	
Te (1)	Close
	Add Annotation
	Unlink
	Send To
	Mark as Viewed
	Mark as <u>N</u> ot Viewed



Case Times and Synchronization

Whenever possible, the system automatically synchronizes the defibrillator event times to the clock on the RescueNet Code Review workstation. You can also manually adjust the case start time and the defibrillator times. This enables you to ensure that the times for your cases displayed in RescueNet Code Review are consistent.

Note: To ensure correct current time, keep the RescueNet Code Review workstation synchronized to an accurate time source.

There are three key times: the case start time, the defibrillator power on time, and the adjusted power on time.

Case Start Time

The case start time is the time the case actually started, which could coincide with the defibrillator power on time or an earlier, non-defibrillator event.

E- 11 2004-10-29	^	1 - General 2 - Entire ECG 3 - Magnified ECG 4 - 12-Lead
i⊟ 🌹 Doe		
2004-10-29 08:29:04		Case
🔝 08:29:04 Mauth-to-mouth		Bun rumbe:
🧐 08:39:04 Politik on		
🧐 08:39:04 Card 1	-	Start time: 2004-10-29 08:29:04

Defibrillator Power On Time and Adjusted Power On Time

□ 11 2004-10-29 □ ↑ Doe	^	1 - General 2 - Entire ECG 3 - Magnified ECG 4 - 12-Lead
2004-10-29 08:29:04		Case
08:29:04 Mouth-to-mouth 08:39:04 Power on		Run number:
08:39:0 Card 1		Start time: 2004-10-29 08:29:04
		Data duration: 00:14:30
08:39:41 obe log start		File name: ites\Pinpoint Technologies, Inc\ZDData\Copy of CW-10-29-
🤪 08:39:50 Bar-valve-mask:		Comments:
08:39:55 Analysis: shock ac 08:39:58 Shock: 1 120 Joul		
08:39:58 Energy delivered:		
 08:39:58 Patien current: 1 08:39:58 Patien impedance 		Defibrillator
08:40:04 Start corpression		
		Power on time: 2004-10-29 08:39:04
08:40:13 Code log state		Adjusted power on time: 2004-10-29 08:39:04 Adjust
08:40:17 Shock: 3 200 Jobs		Operator:
08:40:07 Shock: 21:50 Joul 08:40:07 Energy daivered: 08:40:07 Patient current: 1 08:40:07 Patient impidance 08:40:13 Code log star 08:40:17 Shock: 3 200 Joul		Adjusted power on time: 2004-10-29 08:39:04 Adjust

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The read-only defibrillator power on time, which is always the first defibrillator event, is based on the defibrillator clock. When possible, the system synchronizes it to the clock on the RescueNet Code Review workstation. (Depending on your view options, the system may not display the power on time in the case tree, but will still display the time on the General tab.)

The times displayed in RescueNet Code Review for all defibrillator events are based on the adjusted power on time, which initially is usually the same as the defibrillator power on time. You can manually control the displayed defibrillator event times by adjusting this time.

The Relationship between Case Start Times and Adjusted Power On Times

- The case start time must always be equal to or earlier than the adjusted power on time.
- You can manually adjust the case start time to a time that is earlier than the adjusted power on time.
- If you manually adjust the adjusted power on time to be earlier than the current case start time, the system automatically adjusts the case start time to be equal to the new adjusted power on time.
- If you add an event that occurred before the current case start time, the system adjusts the case start time to be equal to the time of the added event.
- It is not possible to adjust the case start time to be later than the adjusted power on time nor the time of the first non-defibrillator event time.

New Blank Case



Created with the case start time = the current time. Initially, there is no defibrillator data or times.



Upload from Infrared, Serial, Bluetooth, or Downloaded via ZOLL Data Retriever

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If RescueNet Code Review is able to determine defibrillator power on time:

- The system synchronizes the defibrillator power on time to the RescueNet Code Review workstation clock.
- Adjusted power on time = defibrillator power on time.
- For all others, case start time = adjusted power on time (= defibrillator power on time).

If RescueNet Code Review is unable to determine defibrillator power on time:

- Defibrillator power on time = "Unable to determine."
- Adjusted power on time = current time.
- Case start time = adjusted power on time (= current time).

Note: For cases downloaded via ZOLL Data Retriever, it is presumed that the mobile device time is in-sync with the RescueNet Code Review workstation. Prior to using Data Retriever, ensure that this is the case by docking the mobile device to the RescueNet Code Review workstation. This triggers an automatic synchronization of the mobile device clock to the workstation clock.

Upload from Card Reader, USB Drive, or Compact Flash



Time synchronization cannot be performed as time continuity is lost when the card is out of the defibrillator or there is not a direct data transfer from the defibrillator to RescueNet Code Review.

- The system displays the defibrillator power on time as recorded on the card.
- Adjusted power on time = defibrillator power on time.
- Case start time = adjusted power on time (= defibrillator power on time).

Insert Defibrillator Record into an Existing Case

Follows the same rules as when creating a new case from the same source, with one exception: the new case start time = the earlier of the adjusted power on time or the existing case start time.

Note: Insert Defibrillator Record from Card File follows the same rules as Insert Defibrillator Record from Card Reader.

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Chapter 7: Administration

Controlling Access / Using in a Networked Environment

Using groups to control access to RescueNet Code Review

For a standalone installation, set up these groups on the workstation. For an environment in which multiple users are sharing case files over a network, set up these groups in the Windows domain or Active Directory. When these groups exist, the user logged on to Windows must be a member of a group to access its associated item.

- **ZDUsers.** Only members of this group can start RescueNet Code Review.
- **ZDAdmins.** Only members of this group can access Tools > Options.

Note: Group names are specific and cannot be altered. You need to add them as a global security group. The system does not support Novell networks.

Using RescueNet Code Review in a networked environment

All instances of the program should point to one default data files location, which all users can access, share, read, and write to.

0	ptions								
	Data Card Reader Serial Bluetooth Network View System CaseReview								
	Default data files location:								
	 Ignore test cases Upload all AED Pro files (including previously uploaded files) Don't automatically mark cases as viewed Include audio prompts Include extended audio prompts Show confirmation dialog when linking and unlinking cases Show warning when saving incomplete Utstein data Upload all AutoPulse deployments (including previously uploaded) 								
Ľ	OK Cancel Apply								

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Ignoring Test Cases

You can control whether the system ignores test cases when a user opens a new case from infrared, a card reader, a serial connection, or Bluetooth or attempts to attach a case. Test cases are defined as cases with 30 joule shocks, patient impedance of less than 15 ohms, and in which internal paddles were not used.

Options	-		X
Data Card Reader Serial Blu Default data files location:	uetooth Network	View System	CaseReview
☐ Ignore test cases ✓ Appload all AED Pro files (incl ✓ Don't automatically mark cas ✓ Include audio prompts ✓ Include extended audio p ✓ Show confirmation dialog whe ✓ Show warning when saving in ✓ Upload all AutoPulse deploy	es as viewed prompts en linking and unli complete Utstein	nking cases data	ed)
	ОК	Cancel	Apply

Ignore Previously Uploaded Cases AED Pro/AutoPulse

You can control whether to upload only new cases from the AED Pro and AutoPulse or all recorded cases including cases that have been previously uploaded.

Options	×
Data Card Reader Serial Bluetooth Net	work View System CaseReview
Default data files location: Ignore test cases Upload all AED Pro files (including previo On't automatically mark cases as viewe Include audio prompts Include extended audio prompts Show confirmation dialog when linking an Show warning when saving incomplete U	usly uploaded files) d d unlinking cases istein data
Upload all AutoPulse deployments (inclu	ding previously uploaded)
ОК	Cancel Apply



Configure Case Transfer Settings

When you upload a case from infrared, a card reader, a serial connection, or Bluetooth, the transfer is controlled by the settings on the associated Options tab.

Card reader

The Internal option works for most internal card readers in notebook PCs. If the default memory window does not work, you can click Detect to find the first free memory window. You can also try manually selecting the memory window to find one that works. Click Test to determine whether the selected memory window is a valid choice for use with a card reader.

You can optionally choose to erase cards automatically after they are successfully read. This makes it possible to use the card next in either an M Series/E Series/R Series or 1600/1700 defibrillator.

Serial and Bluetooth

The COM port must match the COM port used on the PC by the serial or Bluetooth device. The defibrillator baud setting in CodeNet Central must match the baud setting configured in the defibrillator (see your defibrillator manual for details).

- For the M Series/E Series, the default setting is 115200
- For the 1600/1700, the default setting is 57600

Serial transfer technical note

- **M Series/E Series**. You must use a ZOLL RS-232 Data Transfer Cable (ZOLL part number 8000-0605-01), which terminates in a female DB9 connector.
- **1600/1700**. You must use a ZOLL 1600 Serial Link Cable and Connector (ZOLL part number 8000-1614).

Checking for Software Updates

To enable or disable the Check for Software Updates option: Tools > Options > Enable software updates. If you enable this option, the menu item will appear under Help.

Help			
Ŷ	Getting Started Guide		?
	Check for software updates	Г	
	Read Image		
	About		



Upgrading

You can upgrade RescueNet Code Review Standard to the Enterprise edition. To purchase an upgrade license, contact your ZOLL Medical Regional Sales Manager. To upgrade, enter the license code on the Tools > Options > System tab.

RescueNet Code Review Standard Edition

The RescueNet Code Review Standard Edition has the following features:

Tabs

- General
- Entire ECG
- Magnified ECG
- CPR Analysis
- CPR Quality Calculation

Case Reports

- 12-Lead Events
- HIPAA Disclosure
- Incident Log
- Snapshots
- CPR Analysis Summary
- CPR Performance Summary Data
- Strips

Exports

- Waveform Data
- Event Data
- 12-Lead Data
- Entire Defibrillator Record
- Patient/Case Data
- Audio Data
- CPR Performance Summary Data



RescueNet Code Review Enterprise Edition

RescueNet Code Review Enterprise Edition has the following additional features:

Tabs

- General
- Entire ECG
- Magnified ECG
- CPR Analysis
- CPR Quality Calculation
- 12-Lead
- Snapshot
- Code Record
- Prehospital Utstein

Case Reports

- 12-Lead Events
- HIPAA Disclosure
- Incident Log
- Snapshots
- CPR Analysis Summary
- CPR Performance Summary Data
- NIBP History Table
- Strips
- Vital Trends Graph
- Vital Trends Table

Aggregate Reports

- CPR Analysis Summary
- EMS Frequency by Collapse Location
- EMS Resuscitation Summary
- Pre-hospital Utstein
- Search Results

Exports

- Waveform Data
- Event Data
- 12-Lead Data
- Entire Defibrillator Record
- Patient/Case Data
- Trend Data
- Audio Data
- CPR Performance Summary Data



Chapter 8: Getting help

If you are a ZOLL customer in the United States, use the following contact information for questions or information concerning software sales, upgrades, and support:

ZOLL Medical Corporation 269 Mill Road Chelmsford, MA 01824-4105 USA Telephone: toll free (800) 348-9011 or (978) 421-9655 E-mail: SupportData@zoll.com Fax: (978) 421-0015 Web: www.zoll.com

If you are a ZOLL customer in any other location, either send e-mail to SupportData@zoll.com or contact your nearest authorized local ZOLL representative.

Web for International offices: http://www.zoll.com/contact/worldwide-locations/