HeartOn A10 Event Review Software

USER GUIDE

Automated External Defibrillator
Trend Data Reviewing

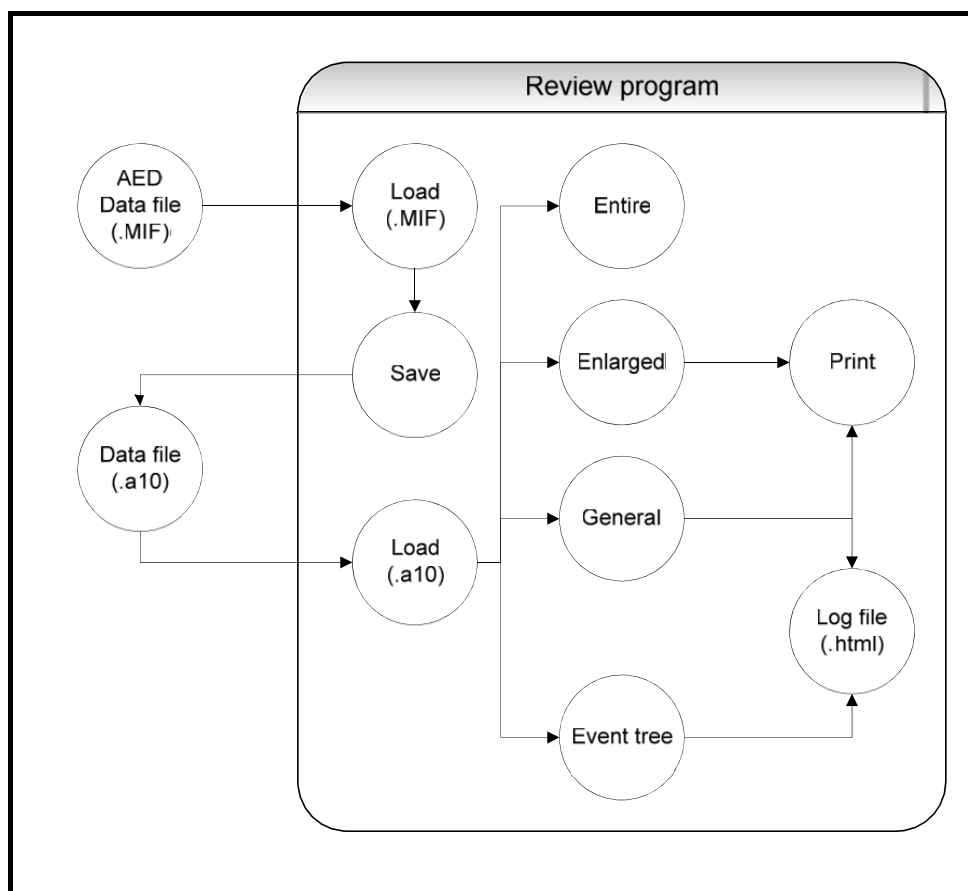TECNO-GAZ industries   TECNO-GAZ Group

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1. Overview

A. Configuration

The descriptions for each component and data flow diagram are provided to explain for composition of the HeartOn A10 Event Review Software.

i.   Component

   (1) AED Data file(.MIF)
      The four files saved in SD-card including vital signs information of patient and operating condition of the HeartOn A10 AED.

   (2) Data file(.a10)
      The filed saved in Computer with additional information from the data file of the HeartOn A10 AED.

   (3) Load(.MIF)
      The component loading the data file of the HeartOn A10 AED to display on the HeartOn A10 Event Review Software.

   (4) Save
      The component saving the data file from the HeartOn A10 AED with additional information.

   (5) Load(.a10)
      The component loading the file only for the HeartOn A10 Event Review Software.

   (6) Entire
      The component to show the entire ECG wave flow.

   (7) Enlarged
      The component to show the ECG wave and the detailed information for each event.

   (8) General
   The component to show information according to each case and to input any additional information.

(9) Event Tree
The component to show events for cases arranged by the date or unit ID.
(10) Print
The component to print the screen shown in the enlarged.
(11) Log file(.html)
The component to show the report on the web browser.

ii.   Data flow(by function)

The HeartOn A10 Event Review Software consists of four major functions.

(1) Load
The HeartOn A10 Event Review Software has two methods to load the data file. The first method is to load four files saved in the HeartOn A10 AED according to applicable protocols. These files include each data (CT data, ECG data, HR data or Trend data). Second method is to load the data from the file (.a10) only for the HeartOn A10 Event Review Software according to the applicable protocol. The file only for the HeartOn A10 Event Review Software includes all the four data saved in the HeartOn A10 AED and additional data as well.

(2) Store
The HeartOn A10 Event Review Software saves the four files saved in the HeartOn A10 AED and additional data as its exclusive file format. When the additional data is changed, it is saved again as the file only for the HeartOn A10 Event Review Software.

(3) View
The HeartOn A10 Event Review Software provides four types of display. Open the saved file and send the data to each display, then arrange the data according to display properties. The first display is the tree view that shows several cases and these cases are arranged by its date or unit ID. The memo can be added by the annotation function. The second display is the general view which the basic data and information for user or patient can be added in. The third display is the entire ECG that shows entire ECG data flow for 2 minutes and 30 seconds. The fourth display is the enlarged ECG that shows ECG data and the event log at an interval of 2, 6 or 8 seconds. These data can be optionally printed.

(4) Print
The ECG data and the event log selected in the enlarged ECG can be printed. Additionally, the display based on the web browser is provided to print the event log and data added on the HeartOn A10 Event Review Software only.

B. The filed saved in the AED (AED data file)
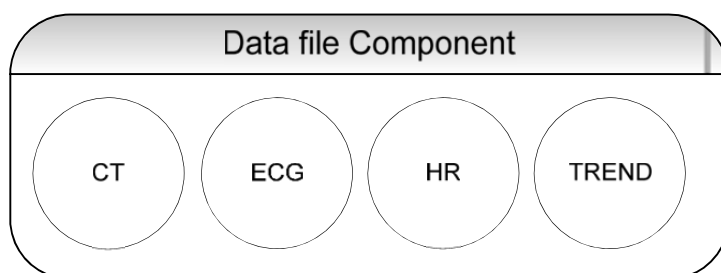
The data saved in SD card of the AED consists of four files and its file extension is MIF .

   i.   CT
It includes data to calculate the shock energy.

   ii.   ECG
It includes ECG data of 250 sample/sec.

   iii.   HR
It includes Heart Rate data measured during the ECG analysis.

   iv.   TREND
It includes events related to Pad, Shock and Body Impedance.

C. The filed saved in the HeartOn A10 Event Review Software (Reviewer data file)
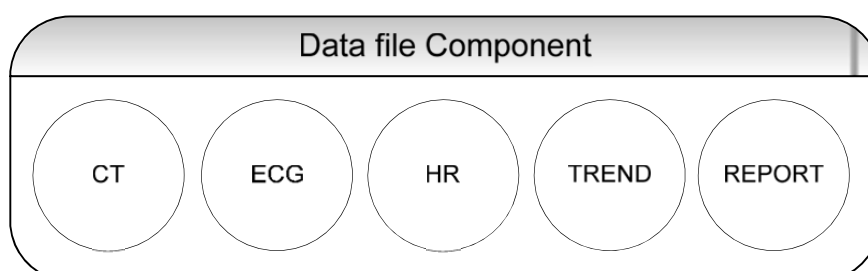
The reviewer data file includes the AED data file and additional data from the HeartOn A10 Event Review Software, and the file extension is a10 . The additional data appears in the report which includes the AED data file as well.

   i.   AED DATA
It includes the loading time from SD card for the file and the serial number of the unit.

   ii.   Add Information
It includes the information about the user and patient of AED and each case.

2. Installing HeartOn A10 Event Review Software

The HeartOn A10 Event Review Software is automatically installed when the installation CD is inserted into the CD driver of the computer.

NOTE   When the HeartOn A10 Event Review Software is not automatically installed, search for HeartOn A10 Event Review Software.exe file from the installation CD s root directory and double click to start.
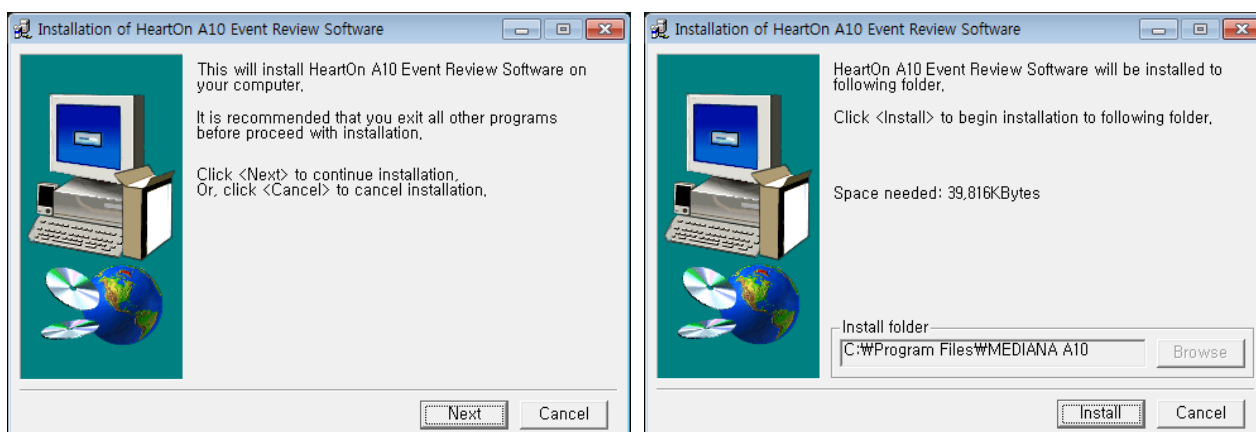

Figure 1. Starting installation

When the installation is finished, the below window appears. Check the Run application box to start the installation application of the lock key driver and start the installation of driver by pressing OK .
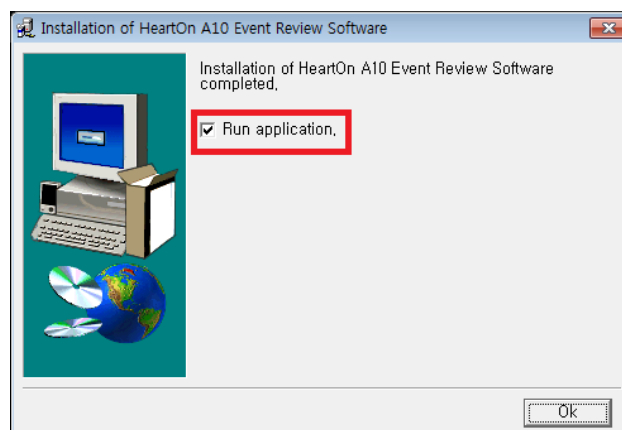

Figure 2. Selecting installation of the lock key driver

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When the window for starting the installation of lock key driver appears, click Next button to progress the installation. Then check I accept the license agreement on the next window and click Next button to progress the installation.
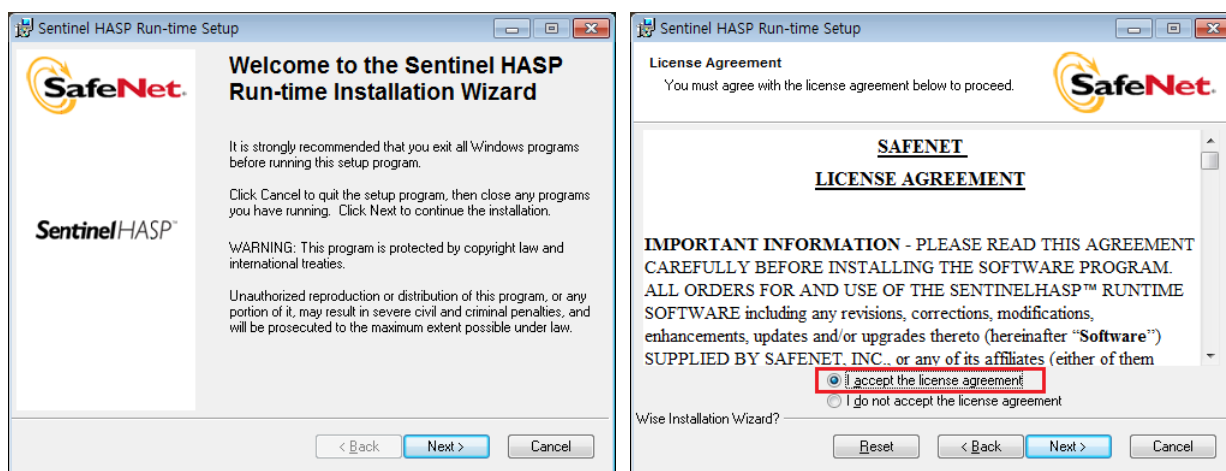

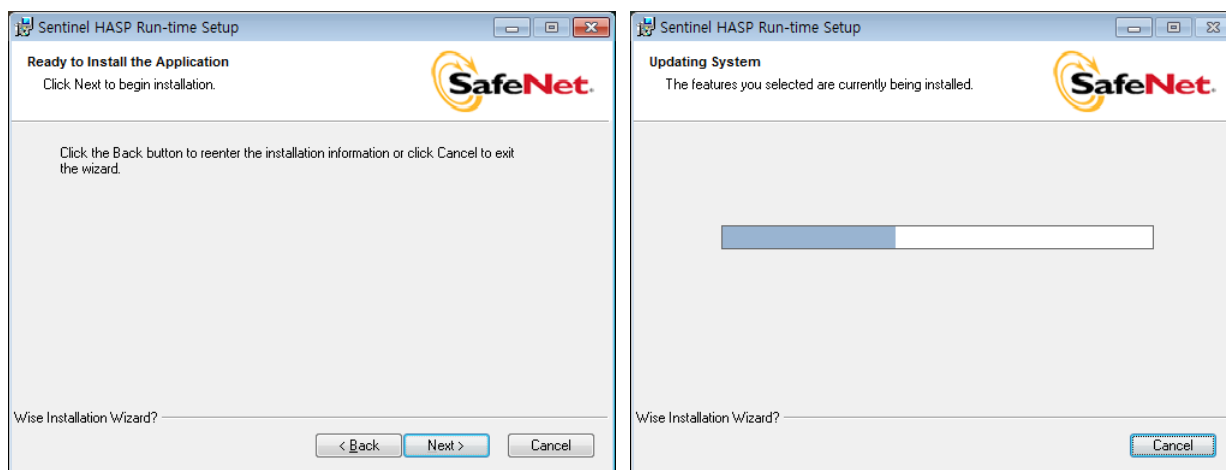Figure 3. Starting the installation of the lock key driver

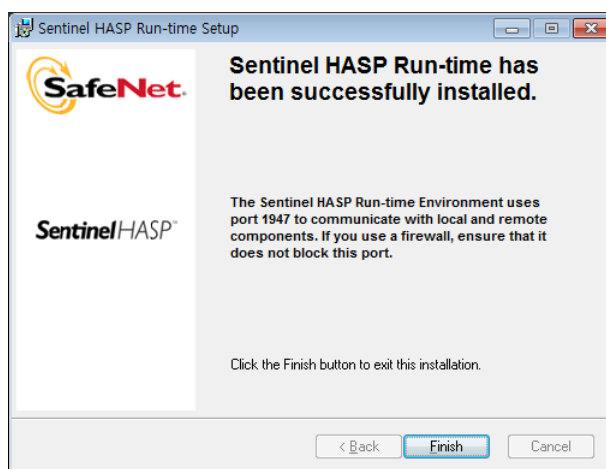Figure 4. Going on the installation of the lock driver

Figure 5. Finishing the installation of the lock key driver

When the finish window appears, the installation of the lock key driver and the HeartOn A10 Event Review Software is completed.

3. Using the HeartOn A10 Event Review Software and structure

A. Loading the MIF file

Select the Open menu to open the MIF file.
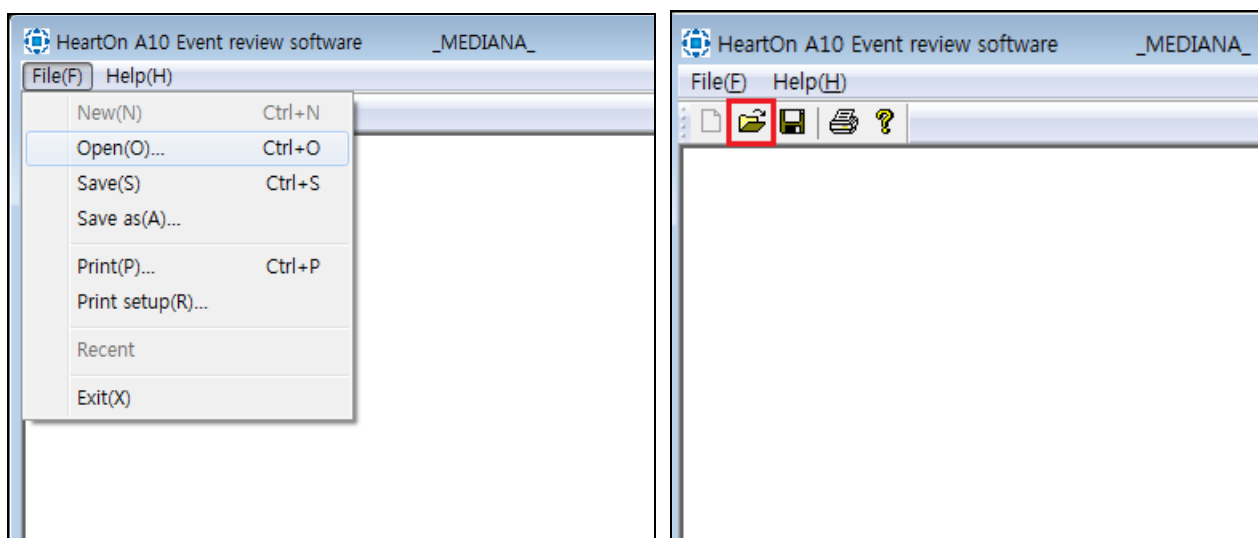

Figure 6. Selecting the Open menu

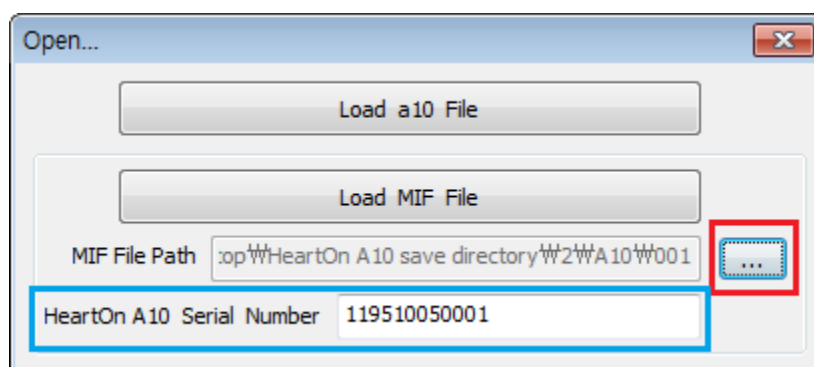When the Open menu is selected, the below window appears. Click Load MIF File button to select the MIF file path.

Figure 7. Selecting the type of file

Enter the serial number indicated on the bottom of the unit to identify the data.

NOTE   The MIF File Path is to load the MIF file saved in SD card of the HeartOn A10 AED. Connect the SD card to the computer and move to the default directory. Then the A10 directory appears as shown in the below left side window. The folders are created whenever AED is used and the relevant data are saved in each folder. The folder name mounts from 001. The four MIF files explained above exist in each folder. One file may be selected.

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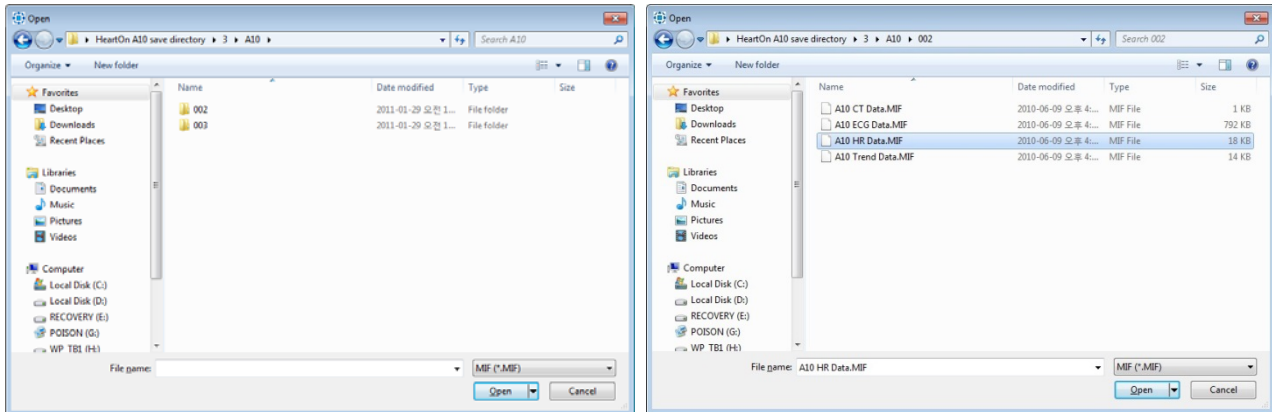Select the MIF file and click the Load MIF File button to progress.

Figure 8. Selecting the MIF file

When the Load MIF File is selected the window appears as shown in Figure 9. The path and file name may set in the below window to save the MIF file saved in the AED as a10 file only for the HeartOn A10 Event Review Software. The name is auto-defined or user-defined. When the setting is completed, click Save button to progress.
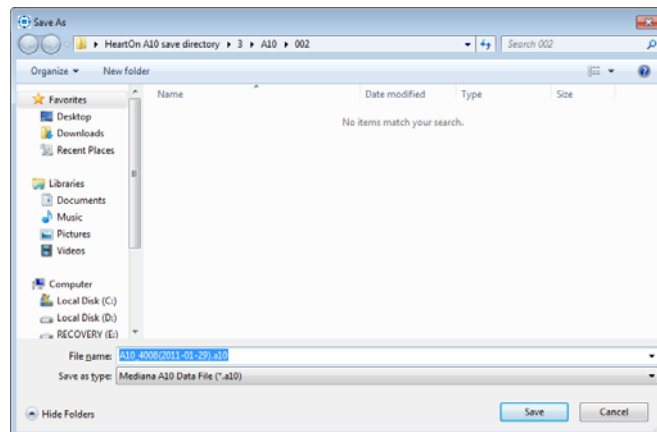

Figure 9. Selecting the directory to save the a10 file

When the saving procedure is completed, the MIF files are automatically deleted from the SD card. The notice window appears as shown in Figure 10.
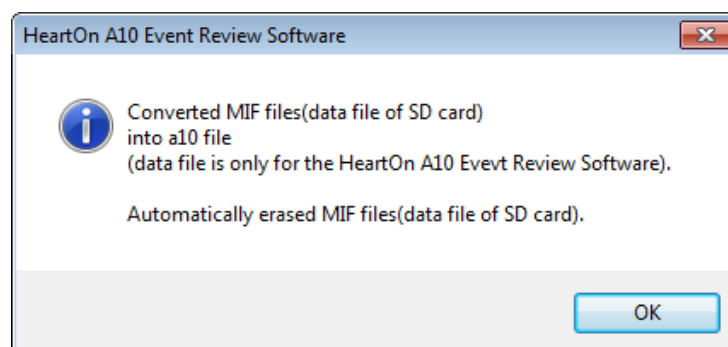

Figure 10. Notice window for erasing MIF file

The below window appears to show all data when all procedures are completed.
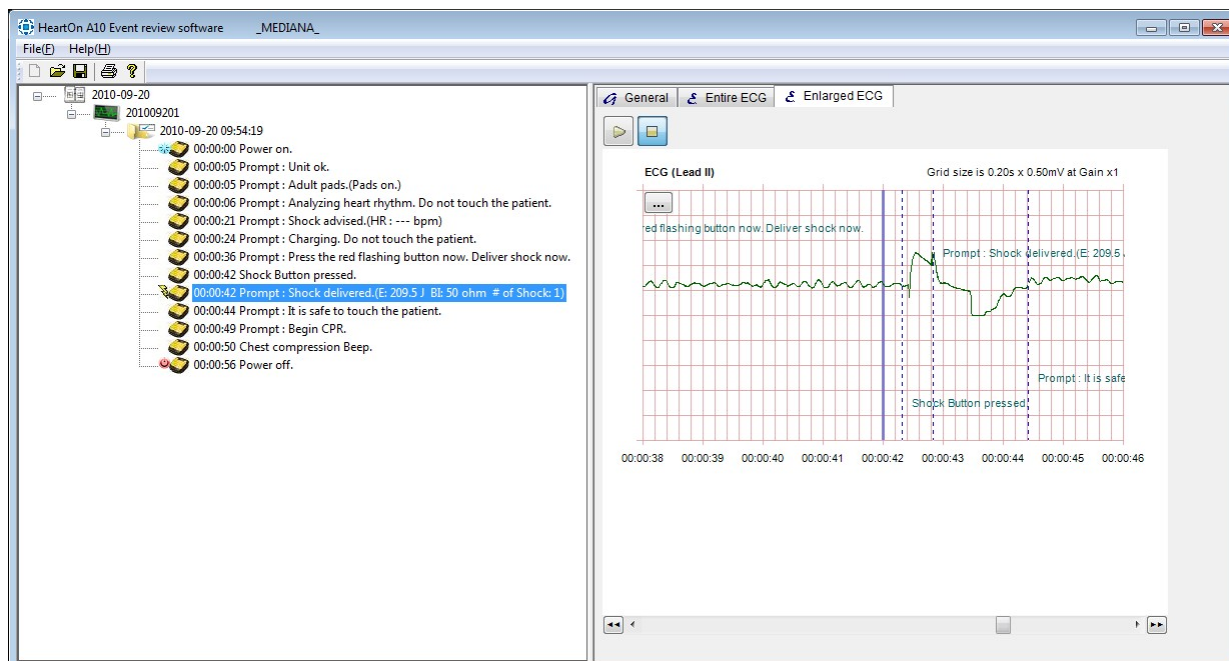

Figure 11. Completion of the MIF file loading

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B. Loading the a10 file

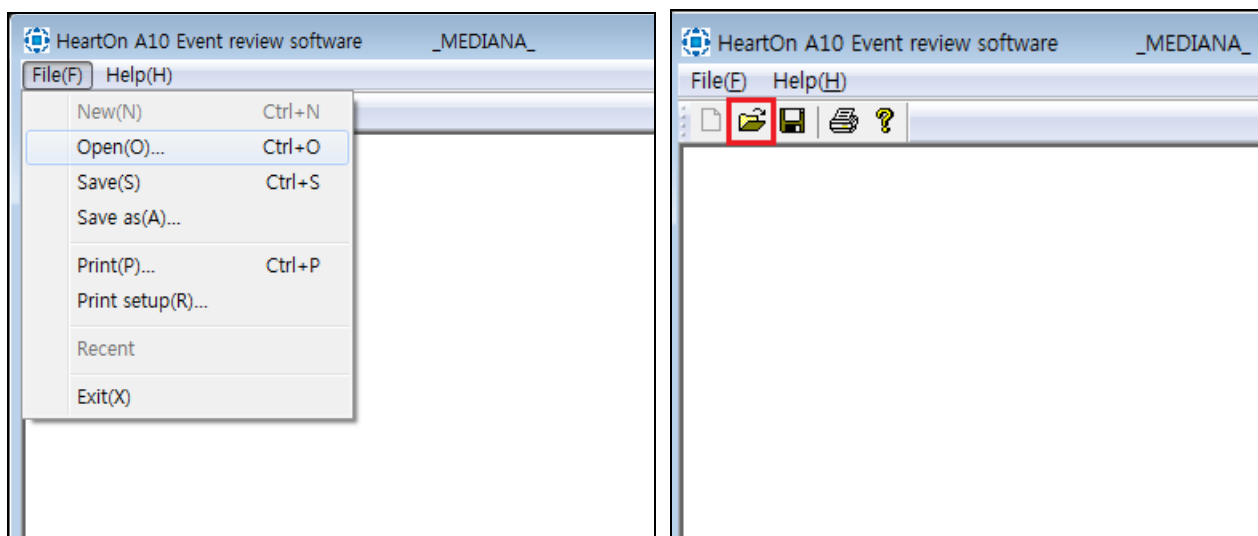Select the Open menu to open the a10 file.

Figure 12. Selecting the Open menu

NOTE The a10 file only for HeartOn A10 Event Review Software is to be directly converted from MIF file saved in the AED via HeartOn A10 Event Review Software. Therefore, it needs the file management after saving al of 'a10 file. Note that it is impossible to restore the data when the a10 file is erased.

The below window appears when the Open menu is selected. Click the Load A10 file button to progress.
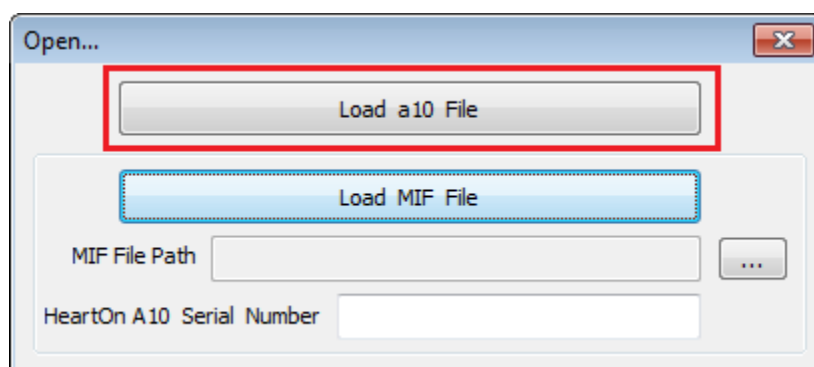

Figure 13. Selecting the type of file

The below window appears to select the a10' file when the Load A10 File button is selected.

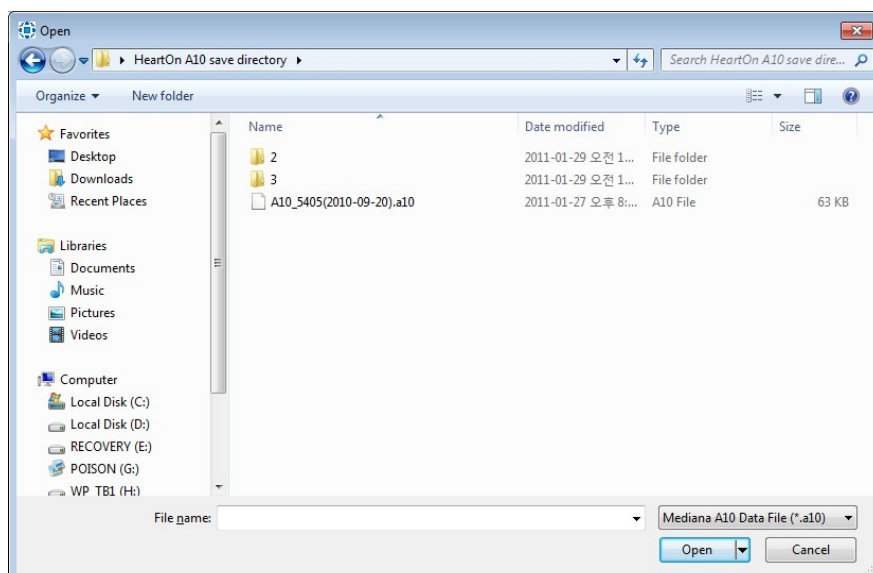TECNO-GAZ   HeartOn A10 Event Review Software User Guide

Figure 14. Selecting   a10 file

The below window appears to show all data when all procedures are completed.
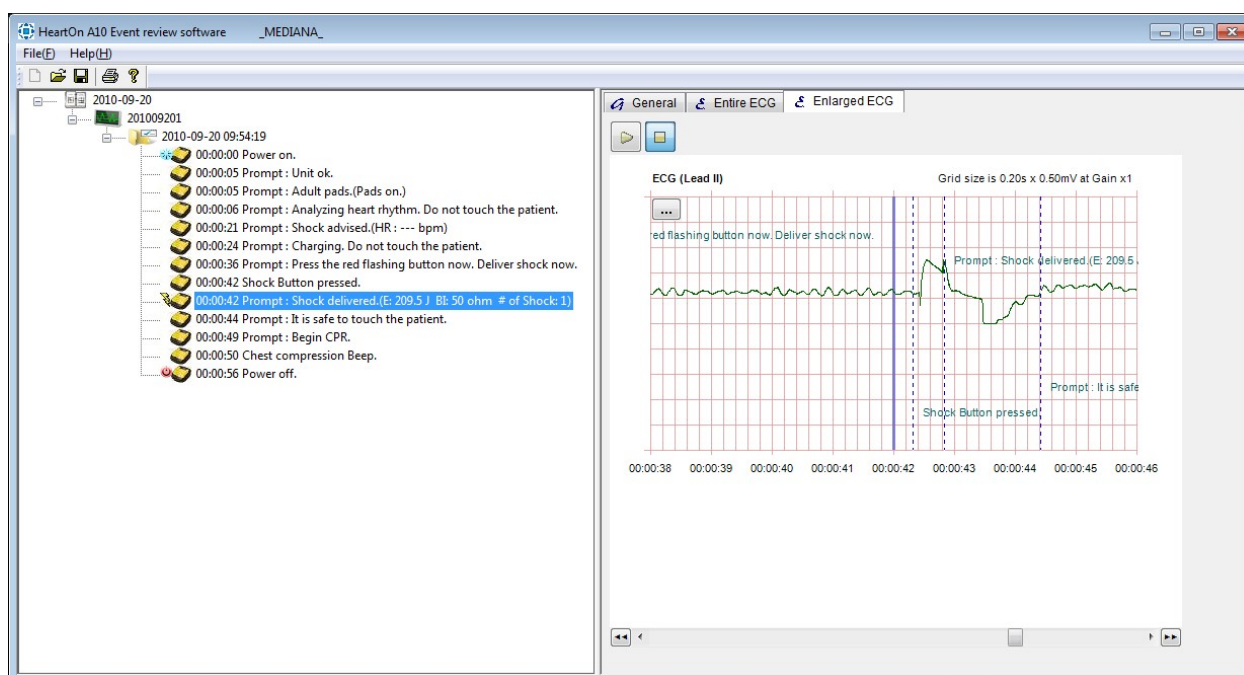
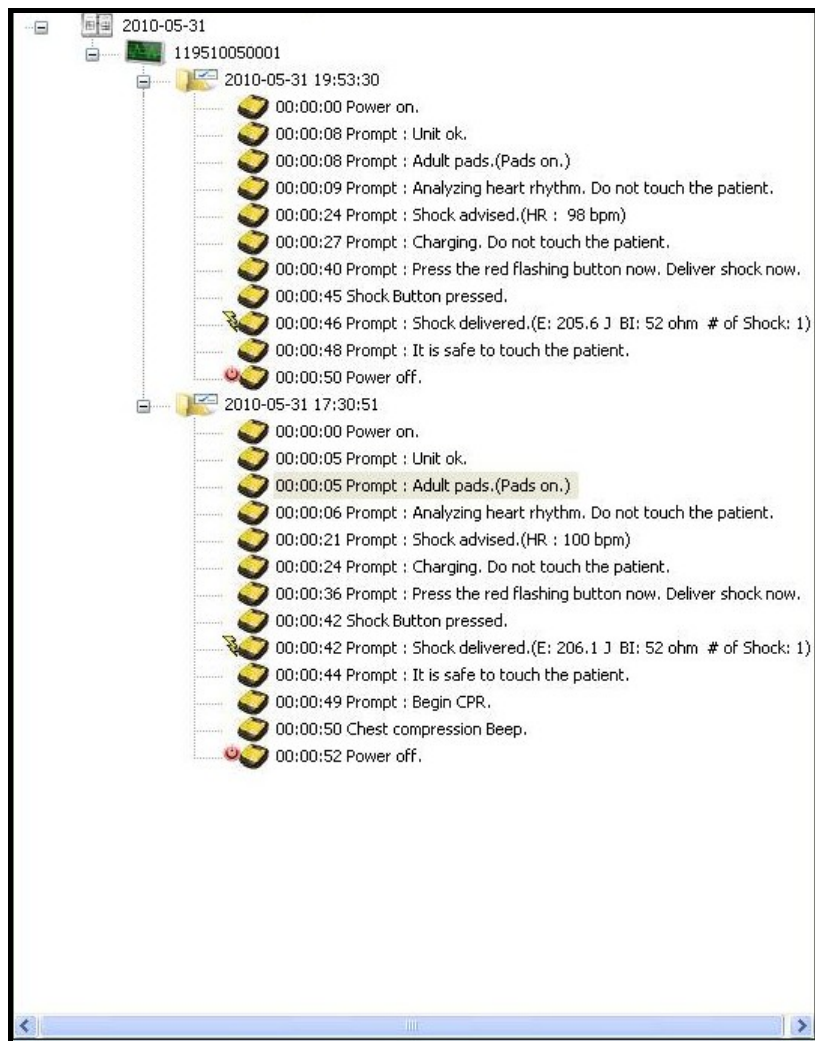**Figure 15. Completion of the a10 file loading**

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C. Event Tree

Figure 16. Event Tree window

The event tree is to show the event data saved in the HeartOn A10.
One or more a10 file(s) are can be opened on the event tree and the events are opened or hided with a case unit.
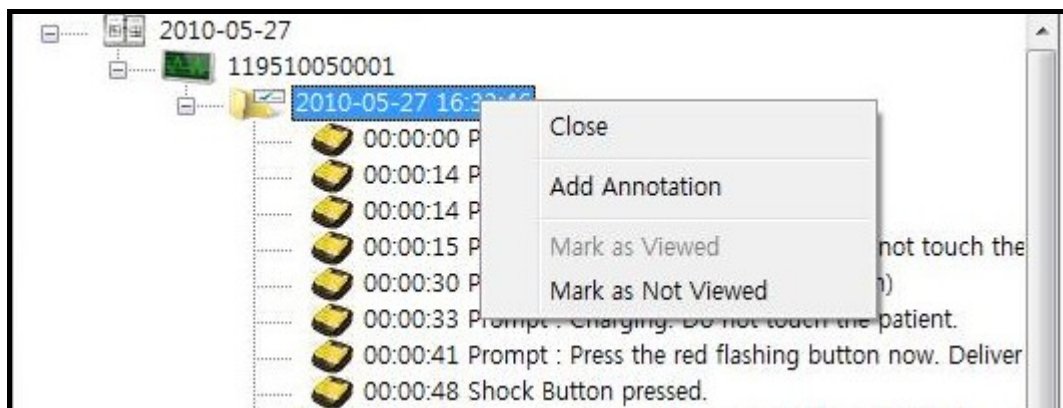

Figure 17. Case menu window

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The menu for each case is available by right-clicking.

- Close: It is used to close the case.
- Add Annotation: It is used to add the annotation for the specified time.
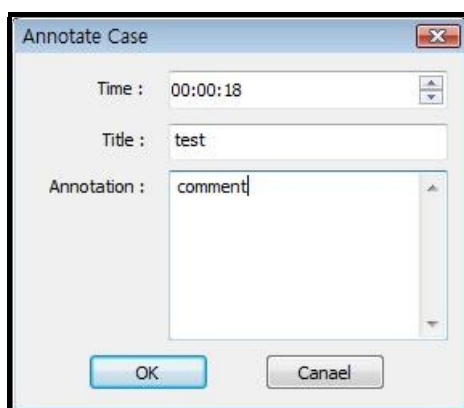- Mark as (Not) viewed: It is used to mark that each case is viewed or not.

Figure 18. Adding the annotation   Event Tree

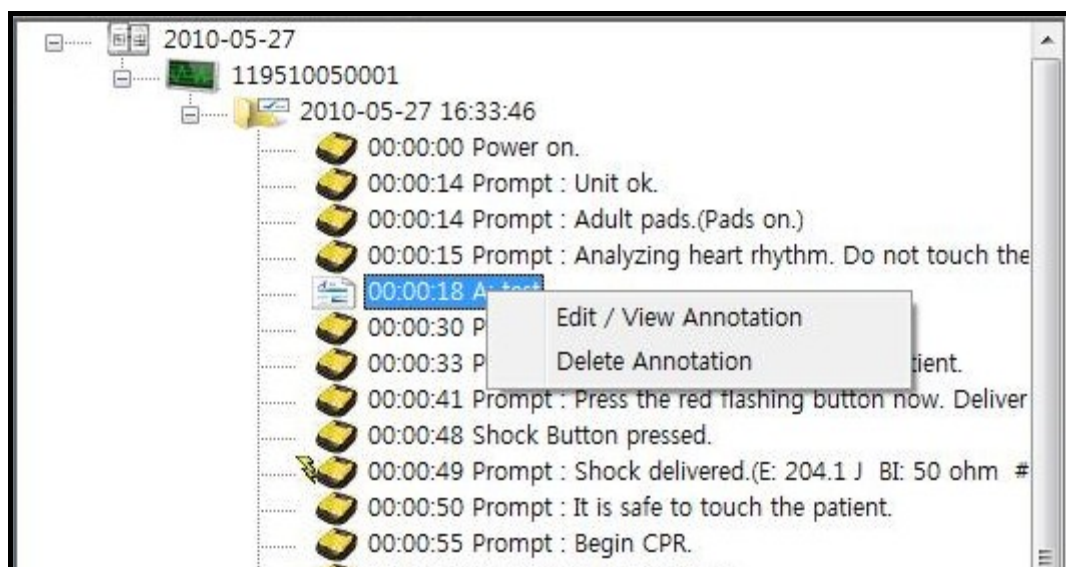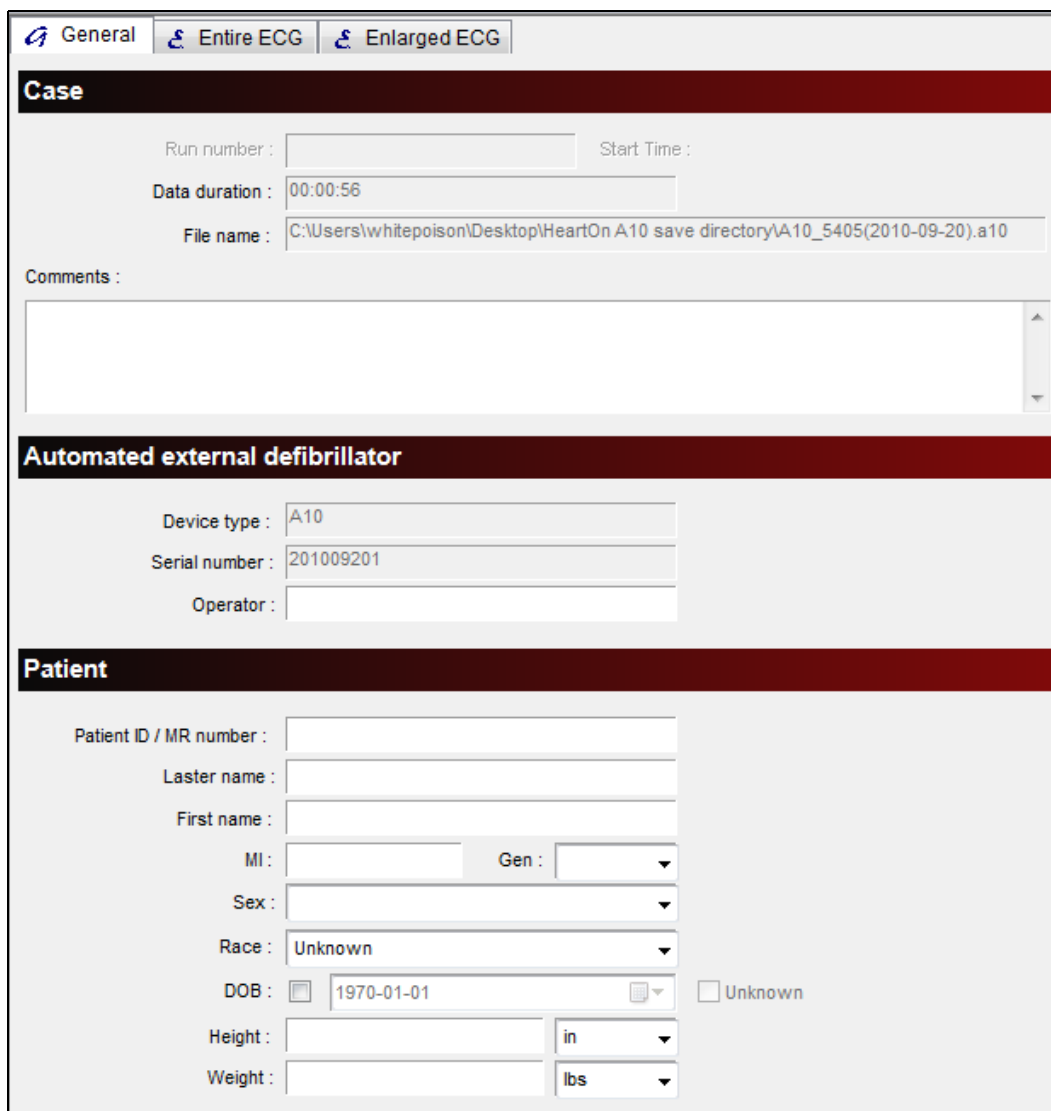The added annotation can be edited or deleted by right-clicking it.

Figure 19. Editing or deleting the annotation   Event Tree

D. General

Figure 20. General window

The General window is to save the additional data generated by using the HeartOn A10 AED.

It consists of three major functions.
Case: It is used to display the selected case information.
Automated external defibrillator: It is used to display the AED information.
Patient: It is used to display the patient information.

If necessary, you can input data into the blank spaces of the General window and save it. These data is available later.
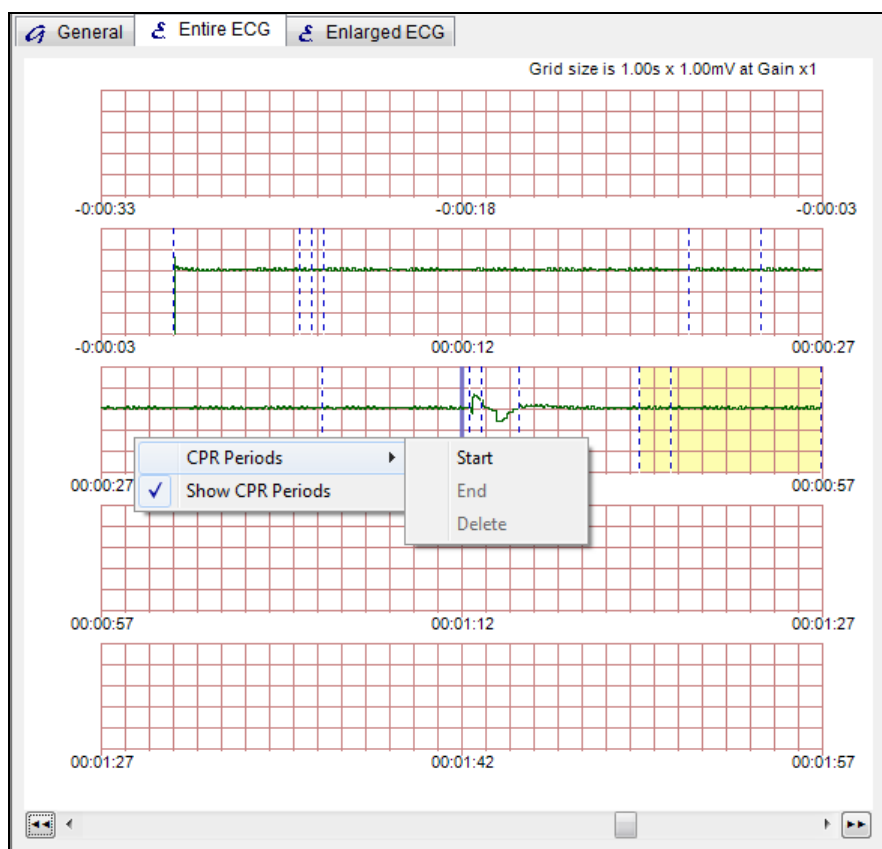
E. Entire ECG

Figure 21. Entire ECG window

The Entire EGC window is to view the entire ECG data flow saved in the AED.
The ECG data during 2 minutes and 30 seconds are displayed with the interval 30 seconds and the event points are marked on the display. The CPR periods can be set and indicated.

The setting menu for CPR periods is available by right-clicking the specified point. The CPR periods can be set, deleted, displayed or hidden via this menu.

NOTE   The CPR periods can be operated on the HeartOn A10 Event Review Software but it cannot be saved. The initial CPR periods is specified by the AED.

Use the below scroll bar to show data on the desired point.
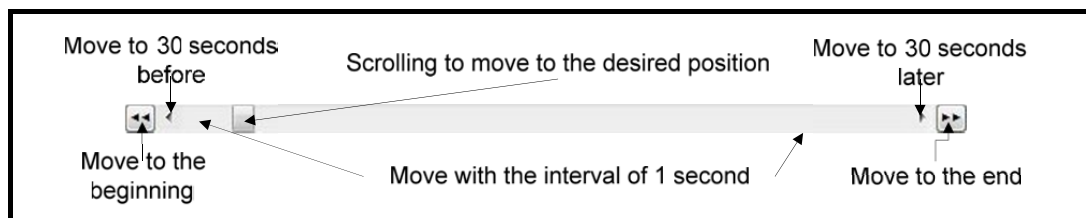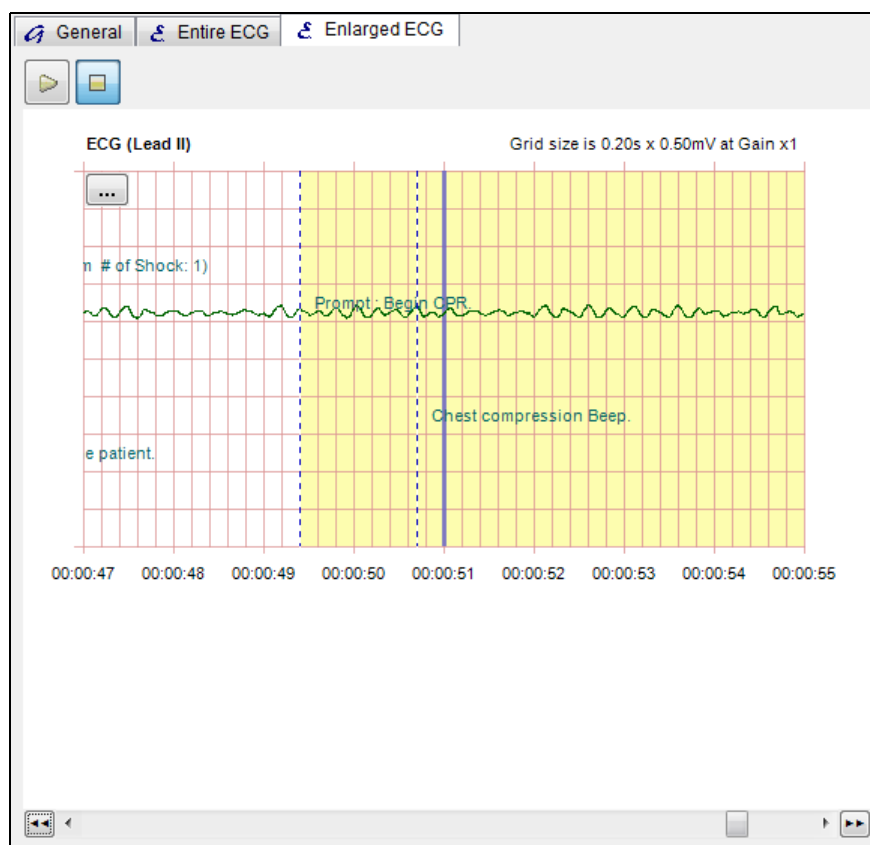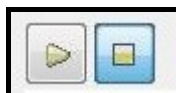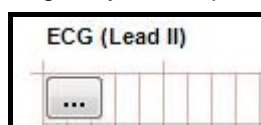
F. Enlarged ECG

Figure 22. Enlarged ECG window

The enlarged ECG window is to view the ECG data and event data of the AED enlarged with the time unit.

It plays or stops all procedures by pressing Play or Stop buttons located at the top of the window.

The display setting button is located under the Play and Stop button.
The display setting button is used to set three menus below.
- Display 6sec View: It is used to display the 6 seconds view of enlarged ECG. (The default of enlarged ECG display is the 8 seconds view.)
- Display Large View: It is used to display the 2 seconds view of enlarged ECG.
- Display Event Text: It is used to display or hide the event text. The default setting is to display the event text.

Figure 23. Display setting of the enlarged ECG
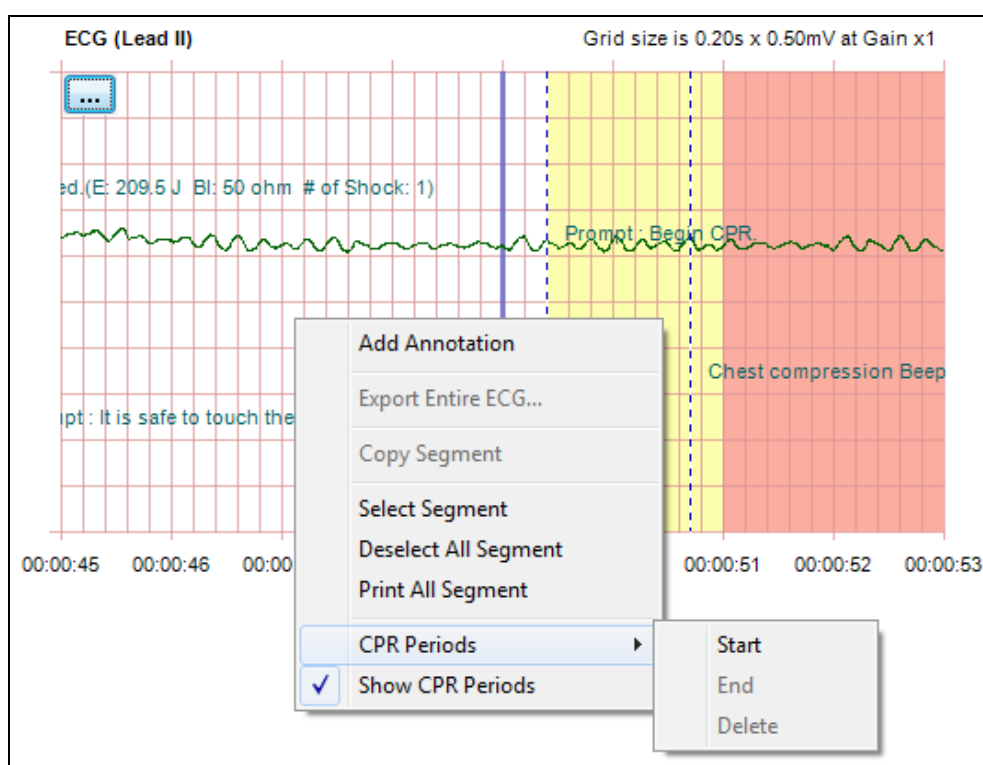The display setting menu is available by right-clicking the enlarged ECG display

Figure 24. Setting the enlarged ECG menu

- Add Annotation: It is used to add the annotation for the specified time.
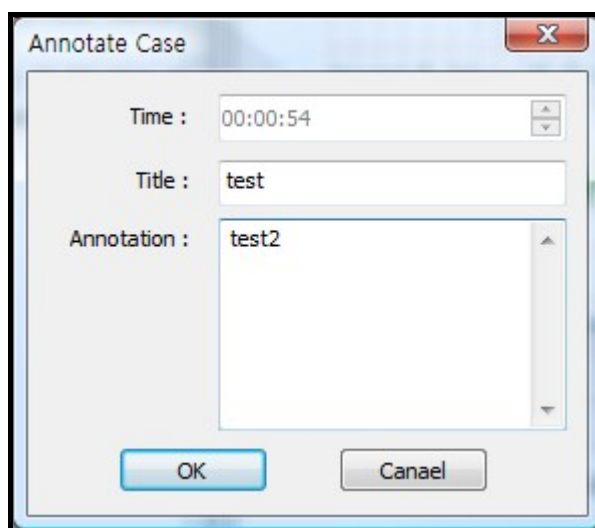 (The specified time is not selectable unlike event tree.)

Figure 25. Adding the annotation Enlarged ECG

- Export Entire ECG: For future use.
- Copy Segment: For future use.

- Segment: It is a part of entire AED data.
  It can be set or deleted like the CPR periods but not be saved.
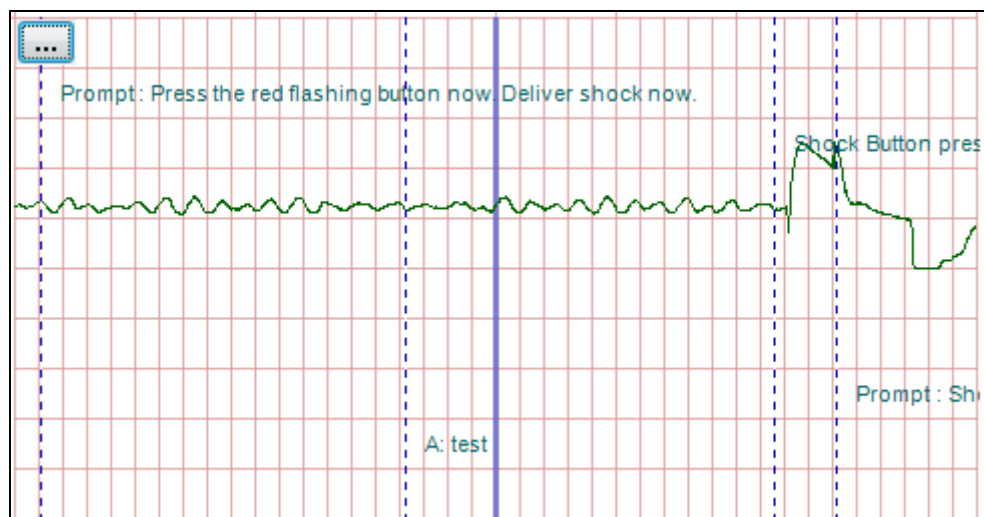 It is used to print the ECG wave form.
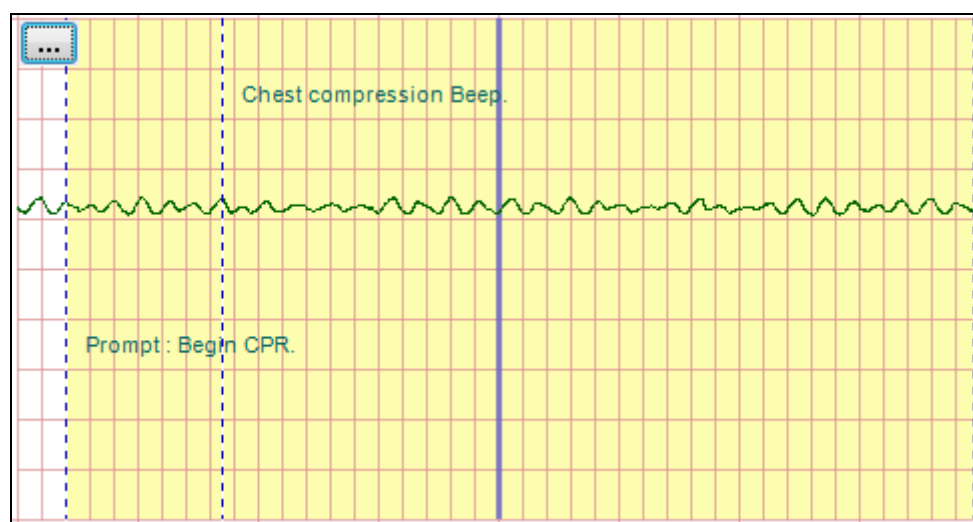
Figure 26. Basic enlarged ECG display

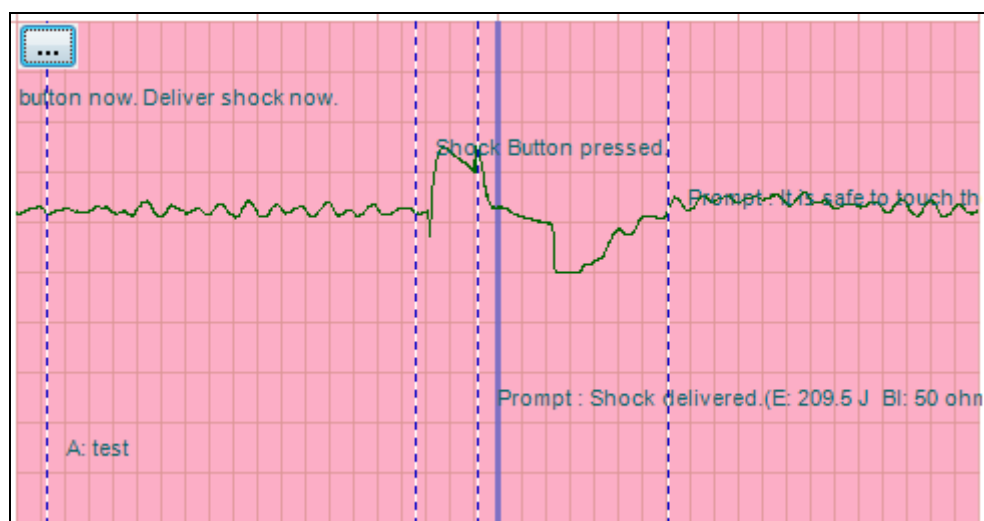**Figure 27. CPR display of enlarged ECG**

Figure 28. Segment display of the enlarged ECG

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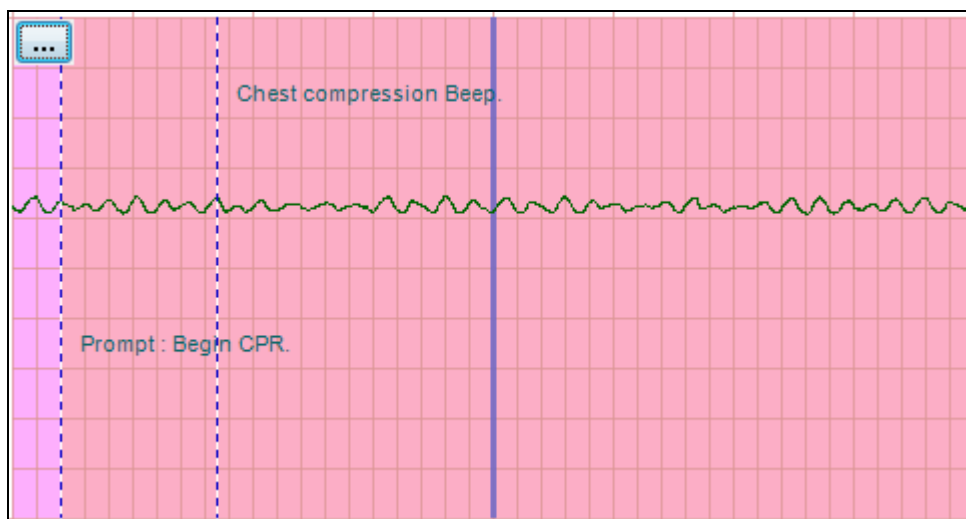**Figure 29. Combination display for CPR & Segment of the enlarged ECG**

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G. Incident Log & Print

i. Incident Log

The incident log is to view the all data of the specified case except for ECG waveform on the web browser. It supports all functions   save, print, or etc. - provided based on the web browser.

NOTE   If the incident log data is not saved when displayed on Internet Explorer, it is available only via the HeartOn A10 Event Review Software.
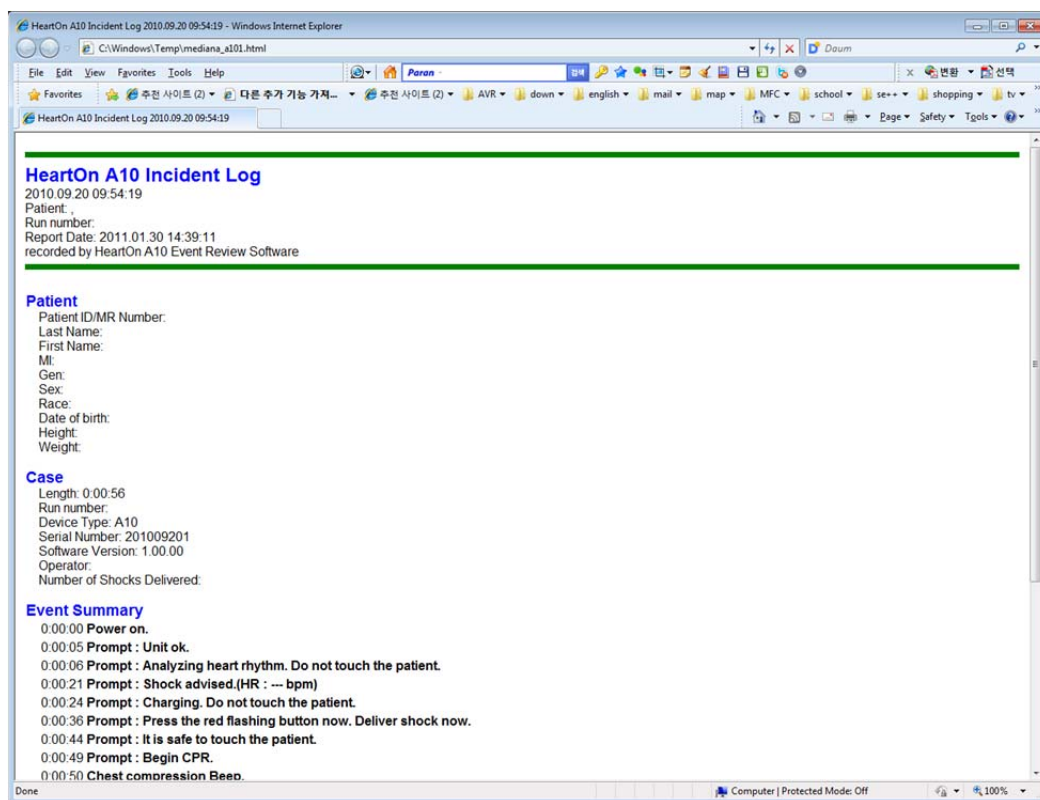

Figure 30. Incident log window

ii. Print

The print function provides only for the segment selected from the enlarged ECG. The segment is printed out with interval of 10 seconds, and it includes the ECG data and event data.

NOTE   The printing resolution should be set to 600dpi. If the resolution is not proper, it would cause the abnormal printing.
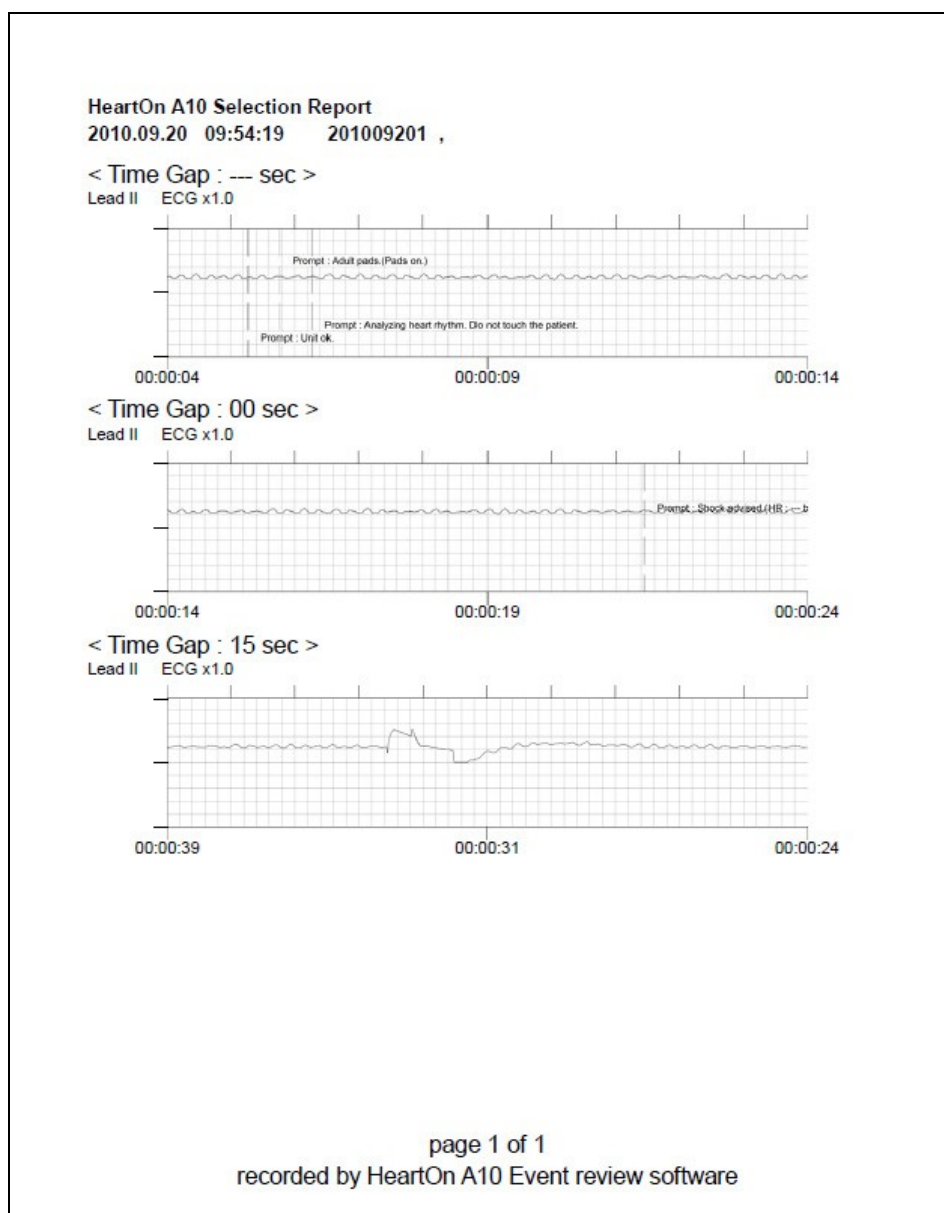

Figure 31. Printing

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