

# AEP Acquisition

Using SmartEP

Applies To  
**SmartEP**

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**SNSEP001**

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## Create or load patient file

### For a new patient:

1. From the main menu, go to **[Patient > New]**.
2. Enter the patient's first and last name, plus any other relevant information.
3. Click **[OK]** to create the file.

### For a returning patient:

1. From the main menu, go to **[Patient > Open]**, or press **N** on your keyboard.
2. Find the patient file and click **[OK]**. The Patient Demographics window will open.
3. Review the information and click **[OK]** to confirm and load the file.

## Preparing the patient

1. Identify the electrode sites required for your test, then clean and prep the skin at each site according to your facility's standard procedures.
2. Apply the electrodes to the prepped skin. Use surgical tape to secure them if needed.
3. Confirm each electrode lead is connected at both the electrode end and the Opti-Amp, and that the lead colors match the channel labels.
4. Check impedances. The procedure depends on your amplifier:
  - **Built-in:** Press the **[Check Impedance]** button below the Amplifier graph.
  - **External:** Perform the impedance check at the Opti-Amp, then set its switch to ON.
5. Connect the transducers to the patient using the appropriate coupler (e.g., a foam tip for insert earphones).

## Starting acquisition

1. From the control panel, click **[Load Settings]** and select the settings file for the test you're performing. If no settings file exists, set the testing parameters manually. You can save them for future use.
2. In the EEG viewing panel, verify the patient EEG looks clean. If the panel is not open, click the **[EEG]** button from the side panel.
3. Start acquisition by clicking **[Acquire]** from the control panel, or pressing **G** on your keyboard. To run an automated session instead, choose **[Protocol > Execute Protocol]** from the main menu.
4. To pause or stop, click **[Pause/Stop]** on the control panel, or press **ESC** or **SPACE** on your keyboard.

## Marking Peaks

To obtain latency and amplitude measurements, mark the peaks on each recording:

1. Select the recording by clicking its handle (the small circle at the far left), or press **S** to cycle through the recordings.
2. From the SmartEP toolbar, click the peak label you wish to mark. The label turns red to indicate it is selected.
3. On the waveform, click just above the peak you want to mark. The label is placed there. (Clicking directly on the tracing will select the recording instead.)
4. Drag the top marker to the peak to set the latency reading.
5. Drag the bottom marker to the valley following the peak. This is required for amplitude and any other amplitude-based calculations.

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## Fine-tuning markers using the keyboard:

- Top marker: press **,** or **←** to move left, **.** or **→** to move right. Hold **SHIFT** to move in larger steps (i.e., **< / >**, or **SHIFT** + arrow key).
- Bottom marker: hold **ALT** while using any of the same keys. Add **SHIFT** for larger steps.

To place additional peak labels, choose **[Mark Other Peak]** from the recording right-click menu.

## Arranging Recordings

- Auto-arrange recordings from the main menu, the toolbar icons, or by pressing **I** (intensity), **O** (acquisition order), **R** (repetition rate), or **F** (stimulus frequency/type).
- Hold **CTRL** while clicking to select multiple recordings.
- Press **CTRL** + **S** to select all other recordings captured simultaneously (in the same **[Acquire]** press as the currently selected one.)
- Move the selected recording up or down on the page by dragging it, or by pressing **↑** or **↓**. Hold **CTRL** to move multiple selected waveforms together.
- Move a recording to another page by dragging it to the page number, choosing **[Send to]** from the right-click menu, or using the **[Set Page]** menu.

## Save Report

A saved report preserves all the elements on the page (recordings, text, images, and any other items added through the **[Report]** menu) along with their arrangement. At the end of a session, click the **[Save Report]** button on the toolbar, or choose **[Report > Save Report]** from the main menu.

To save the report as a PDF instead, choose **[Report > Save Report to PDF File]**, or use the PDF icons on the toolbar. The PDF is saved automatically to the patient's folder and opens in your default PDF viewer.

## Printing

To print a physical copy, choose **[Print > Print Page]** or **[Print > Print All Pages]** from the main menu. Print Page prints only the currently displayed page; Print All Pages prints every page in the report.

## Additional Steps

- Carefully remove the electrodes and transducers from the patient.
- Discard any disposable materials according to your local regulations.
- Power off the equipment and any connected accessories.