

Generating a Data Set

In order to get usable information, a data set needs to be built using the log from all the screenings performed over a selected period. To generate the data set:

1. Log into the screener software using your credentials.
2. Click on the **[SYSTEM MAINTENANCE]** button.
3. Select the "AEP Data Quality" tab.
4. Select the month and year which will be analyzed. For the entire year, select 'All' under the month field.
5. Click on the **[DATA ANALYSIS]** button and wait for the results panel to populate.

Basic Report Information

The following items are located at the top of the report

- Analysis Report Date
- System identification including contact information.
- Source location of the data used for the analysis.

Data Tables

The first two sections are the data for the right ears and left ears including the number of passes, fails, parameters and intended targets. The next sections provides a breakdown of performance for each screener user, and a histogram of how many times babies were screened. Some of the observations that can be gathered from this information include:

Differences in time between sides.

If one side (ear) is always passing quickly while the other takes a long time, a large discrepancy would be seen in the time parameter. Run a maintenance utility and check that the sound output from one earphone sounds the same as the other. If the sound output is OK, it may have something to do with the way the babies are positioned, or the way they are usually laying down. Also check the integrity of the sound tubes and compare them.

Amplitudes are well below targets

Check that the sound tubes are not kinked, frayed, or cracked. Check the sound output of the earphones as well. This is usually the result of some type of sound attenuation.

Noise levels are well above targets

Noisy conditions can be due to many factors:

- Make sure the babies are fed, quiet, or asleep during screening.
- Make sure all electrodes and cables are properly connected.
- Keep the patient cable away from any other devices and cables.
- Make sure the impedances are balanced (similar values) across electrodes, ideally 1k.
- Make sure the cart is connected to a properly grounded outlet (green dot next to the ground pin).
- Have the biomed department check the entire unit for grounding.
- Run the system maintenance procedure.

Screener performance

The table contains a list of all the screeners and number of screens and aborts that each one did. Any outliers in this set will likely need retraining.

Histogram

Most babies will pass the screening at the first try, if too many babies are getting re-screened, it is possible that there is something wrong in the screening procedure, including not following the eligibility guidelines. Re-evaluate the entire screening procedure to find any possible deficiencies.

Data Accuracy

The data contained in the tables is provided as a statistical analysis of the screening results over time. As such, small samples of data may not lead to an accurate representation. If a single month's data set is not enough, look at the data from the entire year to get a more accurate picture. You may also compare one month's data to another to identify trends.