



Analyzing the Data and Planning



“The foundation of all piano regulation is key leveling”

This is the third article in a series that explores each step in using the QuicKey Leveler to level keys and set dip. To read previous articles please [click here](#) and download a PDF copy of 2011 Newsletter Articles.

[Click here](#) and download Software Screen Shots to see larger images.

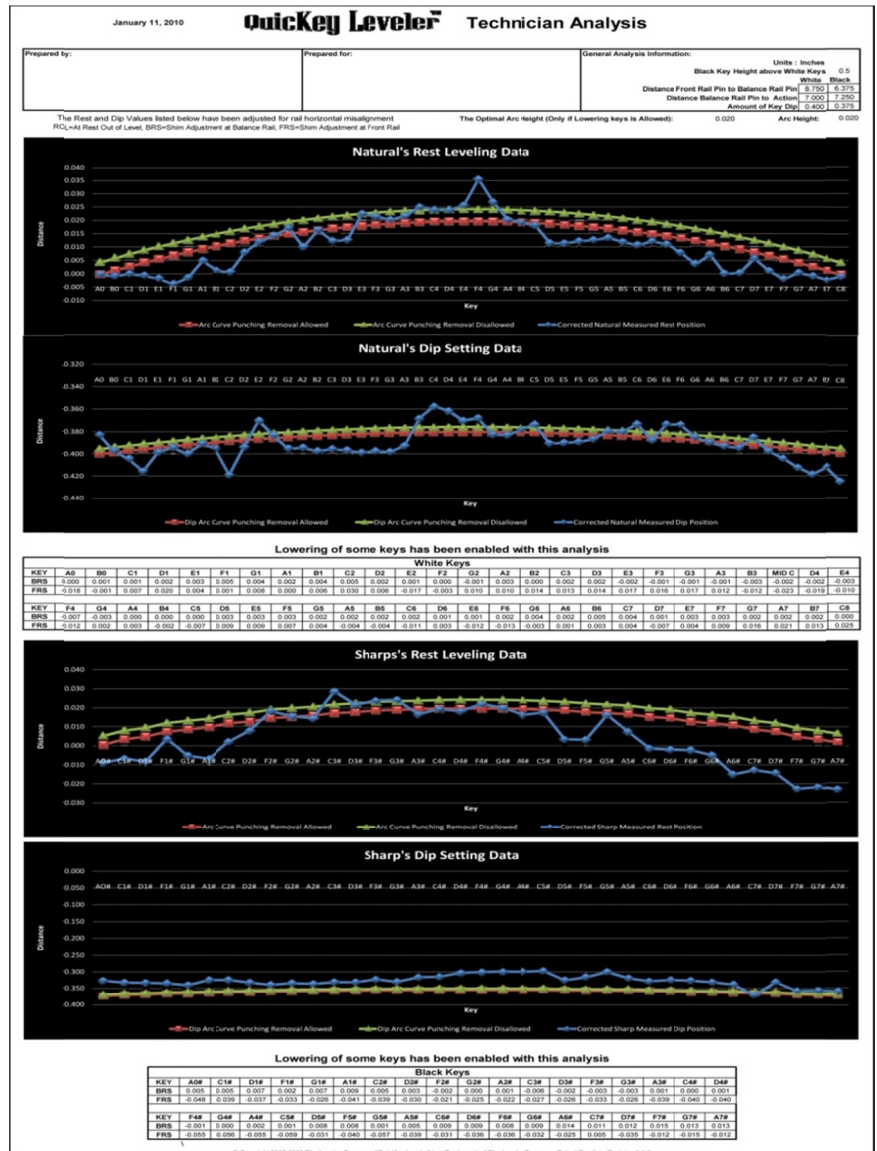
Once the QuicKey Leveler apparatus is set up on the piano and properly positioned, readings are taken for the position of all keys (naturals and sharps) in the rest and dip position. The readings are entered into the software program along with pertinent key data that includes; height of the sharps above the naturals, distance from the front rail pin to the balance rail pin for sharps and naturals, distance from the balance rail pin to the action for both sets. All of these values are constant and shouldn't need changing during the planning stage.

Varying the following and viewing “what-if” scenarios allows the technician to understand the state of the keys.

- Key dip for the naturals
- Key dip for the sharps
- Arc Height
- Allowing or disallowing lowering of keys
- Allowing lowering of a certain percentage of keys

The effect of these variations can be viewed on the Technician Analysis page (shown here). A graphical representation of the current key position is plotted for each key position (natural and sharps) and is shown in blue. Frequently, the data may show that before leveling it would be beneficial to set or shim the key frame in a particular area. Tabulated data showing the required punching adjustment for the scenario is also displayed.

The red and green lines help the technician decide if lowering of the key should be allowed and what amount of lowering would make the most sense. Toggling between the Tech Worksheet and the Tech Analysis pages, the technician can choose the best way to level the keys and set dip.



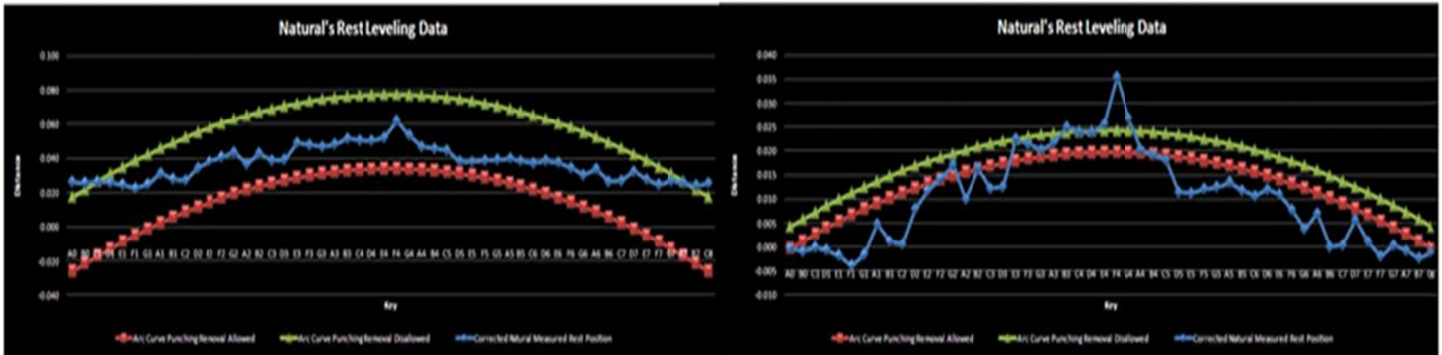


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The Tech Analysis page also offers an Optimal Arc Height. When the Optimal Arc Height is used the least amount of punching adjustment is made. The keys can be brought into level with the least amount of disruption resulting in less regulation work after the job is complete. The graph on the left shows a 0.060” arc height and the graph on the right shows the optimal arc height of 0.020” for this data set. Notice how well the blue line fits the red and green lines.



To learn more about the QuicKey Leveler Software [click here](#).