The Buckeye Backcheck

Newsletter of the Columbus Chapter of the Piano Technicians Guild

Volume 38 Issue 4 April 2013

PIANO TECHNICIANS GUILD
COLUMBUS CHAPTER

MESSAGE FROM THE PRESIDENT

We did have a good turn out at our last meeting at Denison University. I appreciate all of you who traveled to Granville. After all, it is the Columbus Chapter and it should meet in Columbus. Right? Well, I got some of you to come out to my neck of the woods. I really enjoyed Chris's technical presentation of TuneLab and I am sorry I cut him off before he was finished. I know he had a lot more to tell us. I was very interested in everyone's comments and suggestions. And I also noted that not everyone is interested in ETD's. I think the Guild has always been divided into two camps - aural and ETD tuners. I think we can learn something from both methods. I myself tuned for 25 plus years aurally and then started using an Accutuner for 7 or 8 years. And even though I still primarily tune by ear, I learned a lot during the time I used it. I think I need for Chris to show me a few more things. I'm not sure I could figure out how to use it on my own. Very good job Chris. Our next meeting will be at Mark's shop with Chris Purdy giving a technical on agraffes. We will be back at our regular time of 7:30PM for this meeting. I hope to be back at Graves in May for a technical with Ben Wiant and myself on aural tuning. I may give a little of my "life and times" as a piano tuner as well at this meeting. I am really beginning to feel like an old timer. I just received my 30 year pin from the PTG!

John F. Schmoll RPT

The Buckeye Backcheck

Newsletter of the Columbus Chapter of the Piano Technicians Guild

Chapter Meeting Minutes
March 19, 2013

The meeting was held at Burke Hall Of Music & Art, Denison University

Attendance:

John Schmoll, Chris Burget, Ron Kenreich, Kim Hoessly, David Stang, Tim Thompson, Victor Wolfe.

Treasurer's Report:

The Chapter has $2803.18 in checking.

Old Business:

The Chapter once again donated a $100 scholarship to the Central East District of the Ohio Music Teachers Association (OMTA) for it's Summer Music Program.

Reduced fees for retired members was briefly discussed.

The April Meeting will be held at Mark Ritchie's shop and Chris Purdy, former Chapter president who spends part of his time in Tennessee, will present a technical on the topic of agraffe repair.

Chris Burget will be working to put the recorded "Life And Times Of A Piano Technician" onto DVD's for the Chapter Library. Also discussed was making these available to members who would like a copy, and also posting the videos on the Chapter website.

New Business:

The May meeting will be at Graves Pianos, Tuesday May 21 with Ben Wiant and John Schmoll discussing aural tuning techniques.

The Dayton Chapter has planned a tour of the O.S. Kelly Foundry, which will take place on Thursday, May 16th at 5 AM. The tour will go through the foundry section of the plant where participants will get to watch a piano plate being poured. Those members wanting to go on the tour should go the PTG website, sign in and reply to the discussion at: http://my.ptg.org/Communities/ViewDiscussions/ViewThread/?GroupId=67&MID=240875

Butts & Flanges

Tim Thompson was presented with some sticking keys on a vertical piano. When the damper pedal was engaged the keys would not return to normal resting position. After holding down the back end of the key he saw that the wippen and the rest of the action moved freely and worked fine independently of the keys. It was suggested that the main culprit was excessive friction at the balance rail holes and the damper return springs on their own were just not enough to overcome this. Members discussed proper easing of the hole so as to not create a "pulley key", and maybe applying a little protek lube on the balance rail pins and the front rail pins as well.

Tim also mentioned tuning an Emerson baby grand that had at least one very loose tuning pin. A crack forming in the pinblock was considered a possibility. Members discussed that replacing the pin with a larger one could likely make the problem worse in the long run. Another suggestion was to drive the existing pin a little deeper even though it may not be enough if it is really loose. So, they recommended CA treatment instead, and briefly discussed how to go about that. Results may vary depending on several factors, so pins may feel sufficiently tight or they meel feel a little mushy or jumpy in the block.

Victor Wolfe mentioned that he wrote a letter to the PTG Home Office wherein he suggested that efforts should be undertaken to change the piano's classification under percussion to that of strings. A rather humorous exchange followed, naturally, with members offering point and counter-point. We all wish him well in this endeavor. Well, they do have strings!

http://my.ptg.org/2013Convention/Main

The Buckeye Backcheck

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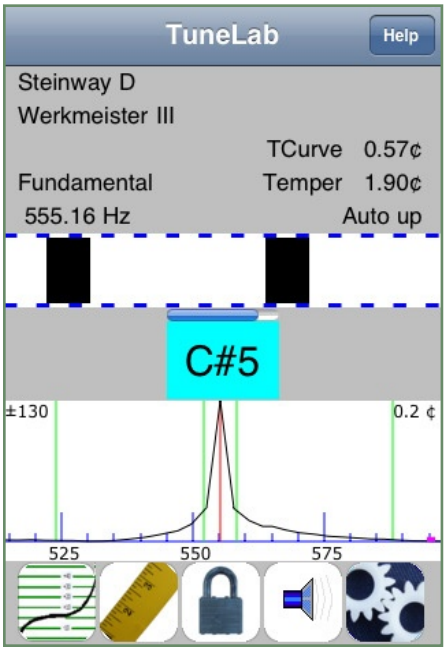
Tunelab Tuning Software



For the March technical I, Chris Burget, gave a presentation on the Tunelab electronic tuning device (ETD). Many thanks to Tim Thompson for his assistance and the use of his iPad, which made it easier for members to see the various user screens. As a foreword of sorts, I would like to say that any ETD is a tool; no more, no less. I do not forward the notion that using such a device is superior to aural tuning techniques and that one should bypass building a strong foundation in them. I view this device primarily as a diagnostic tool that measures frequencies and can give me a quantifiable basis for making certain tuning decisions.

Tunelab is available for various devices and platforms: Apple and PC laptops; pocket PC's; iPods/iPads/iPhones; and Android phones/tablets. The software generally costs around $300 (when published) but, for some devices, there is a free trial version as well. The free version is identical to the paid one except that an upgrade message will display for two minutes every fourteen notes.

My demonstration touched on some of it's basic functionality, settings and how one can use it for aural training, direct-interval tuning and muteless pitch-raising. There are many other features that I didn't demonstrate.

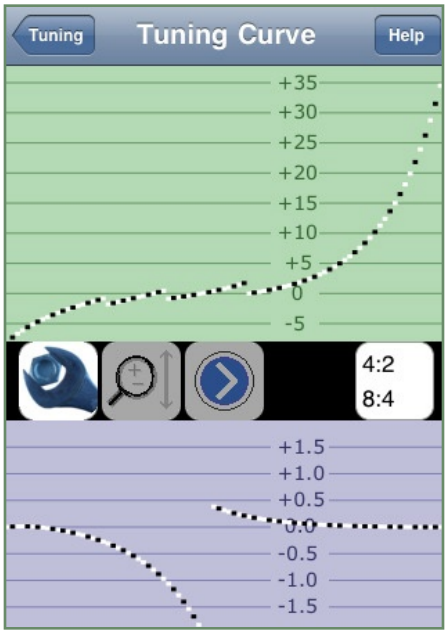
The main tuning display is fairly intuitive, in my opinion. It simultaneously displays pitch information in a variety of ways: a left/right strobe-like phase display; a waveform that can display multiple pitches at once; a real-time +/- cents indicator; and a blue bar above the note name that appears when approaching .5 cents or less. One can change which partial is being listened to at any time by just swiping across the waveform. This is very useful when trying to zero in on what particular partials are doing or when certain partials are too faint to use effectively. And since the waveform display can show multiple pithces at once, false beats can be visually identified and muteless pitch-raising is made easier.

I then showed how to sample some notes on a piano, explained how a tuning curve is generated based on those samples and how to change the amount of stretch in the treble and bass. The more notes sampled the more accurate the curve will match a piano's particular inharmonicity (IH). There are several default settings for this or one can enter any sequence or number of notes desired. It may be a good idea to sample notes on both sides of any breaks and/or when strings change from wound to plain steel. Tunelab can detect sudden spikes in IH and kick in a "split-scale" mode that can be useful on poorly scaled instruments. It will by default prioritize the 6:3 octave in the bass starting from the highest wound string. This all can be overridden if desired. One can also choose what kind of octave preferences should be prioritized in both the treble and bass. There are about a dozen or so choices for each like 2:1, 4:2 or 6:3 octaves, or 3:1 or 6:2 12ths, or 3:2 5ths, and so on. One nice feature is being able to predict how certain octaves may behave in a particular curve by setting for a given octave type, calibrating the curve for that type then selecting another octave type (without recalibrating) and see how the tuning curve behaves. So, if an 8:4 octave is prioritized to be pure at A0, one can see how wide the 6:3 octave will get throughout the bass. All of these settings and curve preferences can be stored for each individual tuning file.

One of the most useful features for me is the "Locking Mode" where one taps the "Padlock" icon and Tunelab locks onto whatever pitch is sounding. That can then be used to change the overall offset of the device to a nonstandard pitch if desired. I use it for pitch analysis on a given piano. For instance, on a piano that I regularly tune, I'll lock onto A4 and temporarily set the overall offset to that. I then might check A3 to see if it's sharp or flat relative to A4, and go on checking a variety of notes. I then might go on and lock onto A2, for instance, set the offset to that and see where the A4 would end up from that. Going around the piano locking onto different sections will give me an idea of the overall state of the existing tuning, how it has changed from the

The Buckeye Backcheck

Newsletter of the Columbus Chapter of the Piano Technicians Guild



previous tuning, as well as how much raising or lowering I might have to do in any given section. This is very useful in floating pitch in some situations. If the piano is in a college practice room piano and it is flat in the middle section, but the extremes aren't "too far off", and Spring is coming and a rise in humidity is anticipated, I may decide to tune the A4 to something just shy of 440 Hz. I can get a sense of how wide or narrow octaves might be in given sections and better predict how they'll behave as the humidity rises. Floating pitch is hardly a new concept and many aural tuners do it regularly. Using Tunelab in this way at least puts the pitches into meausarable quantities if so desired.

Tunelab can be used for direct-interval tuning and aural training as well. One can see exactly how far unisons might move after strong test blows, for example. Or specific partials can be targeted for given notes for direct-interval tuning. If one wants to hear what an exact 7bps F3 3rd sounds like, it's possible (note: I'm not implying that it would actually be exactly 7bps in an actual tuning). In this instance, the 5th partial of F3 and 4th partial of A3 are coincident at a frequency that would be around A5 on the scale. Set Tunelab to listen to the 1st partial at A5. Play A3 (while the ETD is on A5) and hit the lock button. After the offset has been locked, look at what frequency is given in the display, then lower it by 7Hz. With the ETD still on A5 tune the F3 to stop the display. Voila! F3 3rd at 7bps. That is just one example and way to go about it. Another example might be a pure 6:3 octave in the bass between C2 and C3. One could go about it in a somewhat similar fashion by having the ETD set to the fundamental of G4 an octave and a 5th above C3. Or, since Tunelab will let you choose different partials for most notes (except the very high treble), you could just choose the third partial of C3, lock onto it and then tune C2 to stop the display to get a pure 6:3 octave. This is one way to train the ear to hear the differences between certain kinds of intervals. One can then really hear how the aural tests for those intervals should sound like. More advanced users could even tune a few intervals like this and use those offsets as the basis for a tuning curve for the rest of the piano. Compromises between octave types such as narrow 6:3 and wide 4:2 octaves, pure P12ths, or Bill Bremmer's "Mindless Octaves" are possible. An example of a mindless octave in the treble is when an upper note (C6) is equally wide at a double octave below (C4) as it is narrow at an octave and a 5th, or 12th, below (F4). One measures the frequencies in Hz of the 4th partial of C4 and the 3rd partial of F4. Then the fundamental frequency of C6 is set to be the average between the two measured freqeuncies. One must be careful, though, when using ETD's this way because mistakes can be made by accidentally measuring the wrong note or partial (as I did once during my demo!). It's just a machine, so "GIGO" applies - Garbage In. Garbage Out!

These are just a few of the ways this program can be put to use. One could also perform a complete aural tuning to one's highest standard then enter the individual offsets of each note into the machine and it would be theoretically possible to duplicate that same tuning everytime if so desired. It also has a variety of historical and unequal temperaments. The pitch-raise mode has been quite effective in my personal experience, thus far. One thing I'll say is that I don't always use Tunelab the same way on every piano. Sometimes I find that the tuning curve generated based on how many notes, or how few, I sampled may not always completely fit the piano. So, I may have to adjust stretch on the fly, which is possible, or add/subtract note samples, or I start relying on more aural techniques if I don't feel like fiddling around trying to get the ideal settings for optimal bass stretch, for example. Or, I might use a combination and use my ear while noticing "that this section is trending towards 2 cents flat at the sixth partial" or something like that. My own use of this tool is still evolving, and as with learning to use any new tool there is a bit of a learning curve. As I stated earlier, I think of it primarily as a diagnostic measuring tool. A digital straightedge of sorts, and I ultimately decide how straight I want my line.

For more information on downloads and users manuals go to: http://www.tunelab-world.com/ and for Bill Bremmer's Mindless Octaves go to: http://www.billbremmer.com/articles/aural_octave_tuning.pdf

The Buckeye Backcheck

Newsletter of the Columbus Chapter of the Piano Technicians Guild

Ringling Museum Of Art

by

Doug Brandt

I went to the Ringling Museum of Art in Sarasota, Florida with my mother. (We've been down in Longboat Key/Sarasota Florida since the beginning of March). I thought you might be interested in a couple of musical instruments displayed there, of which I've attached pictures.

These instruments are an 1876 Weber grand and a 1652 guilded wood harpsichord. I've attached pictures of both. I've also got a piece of video of the harpsichord here (at the bottom of the webpage): http://www.ptgcolumbus.org/ringling-museum-of-art.html

The rosewood Weber grand is seemingly in good condition. Although I wasn't able to lift the fallboard to look at the keys, I did notice that the piano was strung and that it did have a set of new dampers. Here's an article about the instrument (search "Weber"): http://www.ringlingdocents.org/pages/Gallery19.pdf

The harpsichord was not strung. It was built in 1652 by Claude Jacquet of France, and is one of the oldest known French harpsichords in the world. Here's some info about that instrument (look for "Jacquet"): http://harpsichordphoto.org/french/

This article from 1969 calls it the oldest known French harpsichord. From the article above, it appears there are two that are older: http://news.google.com/newspapers?nid=888&dat=19690616&id=4kpSAAAAIBAJ&sjid=13sDAAAAIBAJ&pg=7229,4321630

It's quite a fabulous museum. Upon entering the museum, you see five huge paintings by Rubens that originally came from a larger set. Only seven remain- five at Ringling, and the other two displayed at the Louvre in Paris.

Doug Brandt with 1876 Weber grand

Doug Brandt with 1652 Harpsichord

The Buckeye Backcheck

Newsletter of the Columbus Chapter of the Piano Technicians Guild

www.ptgcolumbus.org

Gift Ideas For The Piano Technician Who Has Everything...?

Courtesy of the Honorable Mark Ritchie

Columbus Chapter of the Piano Technicians Guild

President	John Schmoll, RPT
Vice-President	Bryan Hartzler, RPT
Treasurer	Ron Kenreich
Secretary	Christopher Burget

Contributions and pictures for the Buckeye Backcheck and the web page are always welcome, (even if they are only peripherally related to pianos)!
- Chris Burget

Upcoming Events

Chapter Meeting

Tuesday, April 16 2013,
7:30 pm

Mark Ritchie's Shop
6262 State Route 605
Westerville, OH 43082
614-855-7704
ritchiepiano@gmail.com
www.ritchiepianoservice.com
Topic: Agraffe Repair,
Chris Purdy RPT

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Comments, articles, and advertising requests may be sent to the editor:
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