FretMaestro for the Professional and DIY:

This Tutorial Video is in two parts:

Part One: Light Leveling: requires FretMaestro and some basic 3rd party essential tools.
No sanding beam required.

Part Two: Heavy leveling: requires additional 3rd party tools. Optionally requires sanding beam.

FretMaestro Contents:
Tin Box, marked
Glide Strip
Gauge
Maestro
3 Files
Nail.
*Fret Forensic Worksheet – free download

Part 1: Light Fret leveling - tuning up the frets: What we should have on hand:

3rd party: Things to have
- Notched Straight Edges – long short
- Flashlight
- Truss Rod Wrench
- Tooth Brush
- Belt Sander eraser – Tin snips
- Dry Lube
- Sharpie
- Scissors
- Stainless Steel 6” Engineer Ruler
- Additional Glide Strip

Part 2: Heavy Fret leveling – getting rid of deep string grooves:

3rd Party Additional Tools for heavy leveling plus…
- Rocker or Digital Gauge
- Sanding Beams – 20” and 14”
- Emery Cloth
- Double Side tape

TUTORIAL:
Part One: Light Leveling - FretMaestro does it all: No sanding beam, no destroying the crowns.

The Steps:

1. Support the guitar at the heel.

2. Use the notched Straight edge with strings on:
   a. Basic Straight edges will stand up by themselves, we don't want a fancy colorful sculpted or triangular straight edge that just topples over.
   b. Butt the straight edge to the bridge side of the frets… because, well played guitars will have string wear on the fretboard, we cannot get an accurate straight edge read if we are not aware of this.
      The bridge side of the frets has the widest area of at least .25 - .5+ inches of no wear virgin wood, we use this as the ledgers to read the straight edge, ignoring the irrelevant string and finger wear dips we may see between the frets.
   c. Use a flash light…
   d. If you are happy with the relief in the neck, we do not need to adjust the truss rod to flatten the neck.
      If the relief is too much, we need to flatten the neck to be sure that we can get it flat and this way eliminate any concern of a damaged truss rod or tweaked neck.

3. Remove the strings –
   a. Use notched straight edge, adjust truss rod to make neck flat.
   b. If we cannot make the neck flat, this is why we have the short version of the Notched Straight edge… we cut down a long one to go from the 1st to and including the 14th frets… this is the span of the neck that the truss influences.
      If we can make this span flat, we know that we have a rare heel ramp. No problem, we will deal with that later.

4. ID the shortest fret:
   a. Using the included Maestro Fret Gauge
      * use like a rocker, your fingers as low as possible on the hold to get a better sense, if no rocking, go to next notch, if it rocks and whatever read the gauge gives, for example, 5… we will start with 4, or with 6, we will start with 5 and so on.
   b. Mark the low fret with a sharpie
   c. If we have string wear grooves in some frets:
      * If the grooves are very shallow, we're okay to proceed.
      * If the grooves are deep, this is Heavy Leveling where using a Sanding Beam is going to save us a lot of time.
        Refer to Part Two Heavy Leveling to proceed and then come back to Part One once the rough leveling is done with the beam.

d. Digital Gauge – if we use a digital gauge we will walk in the Maestro Depth of Cut Setting, one click at a time. Start with zero and walk it in.

5. Glide Strip and Scotch Tape
   a. FretMaestro is calibrated to work with the .005" gauge Glide Strip.
   b. Scotch Tape is .0015" gauge
   c. Cut two strips of Glide Strip (scissors) and place one on each side of the lowest fret we identified, or the fret with mild string wear groove, allow a gap of ≤ 1/16" for the file debris to fall into. This prevents debris getting between the Maestro and the glide strip causing abrasion.

6. Level, Radius, and Crown:
   a. I like to start with the Crown Narrowing File, filing until the sharpie mark is narrowed by about 50%. This makes less work for the 150 grit leveling file.
   b. Then with the 150 grit leveling file, make 3 – 5 passes across the fret, look to see where the sharpie mark in cleaned off. This tells us how the fret is shaped, is it high on one side or the middle, low in the middle… telling us it's asymmetrical shape.
   c. Focus filing those high areas first, this way we more easily get to an even filing across the length of the fret.
   d. Clean the file as we go… often sweep the file and the fret with toothbrush, use the Eraser when the file is not cutting as well as it was moments ago.
      Note: if the eraser gets gummy tacky, do not use. Use a fresh one. If you use a gummy, it leaves gummy in the file… the way to clean is with Lacquer Thinner, acetone won't do it. Lacquer thinner dissolves it quick and easy.
   e. Do not jam the file into the fret, this will clog the file with soft nickel, or with Stainless Steel it will tear out diamond grit.
      Note: SS is unlikely to clog the file because it is not soft.
      Note: This is true any diamond file. Do not jam it into the work.
      If the file gets clogged it is ruined.
      If diamond grit gets torn out, the file is ruined.

7. Bottoming out the Maestro:
   a. The file is no longer cutting or is getting light resistance.
   b. Mark the top of the fret again, make a few more passes, if the sharpie remains intact, maybe a bit of scuffing, change to the 300 grit finishing file.
   c. NOTE: it is very important when using any fret file to go dead straight along the fret to avoid filing the sides of the fret, misleading you to thinking the Maestro is not bottomed out. Running the file straight is the only skill requirement.

8. (7 alternate) What if after all of this, some of the sharpie is cleaned off and some is not, meaning that the fret is still asymmetrical?
   a. This is why we start with a lower number setting… sometimes we get lucky, sometimes not, and also because the next step is going to save us 50% fret material and half the time.

   b. This is where the scotch tape comes into play.
   c. We were using setting 4, it did not finish the fret, so we go to setting 5 which means another .003" of filing depth… but we think we are closer than .003".
   d. Apply a layer of scotch tape and put the glide strip on top of that to adjusts the depth of cut down to .0015" instead of .003".
9. We use this along with setting 5 in this example, and see if we get across the finish line, odds are that we will, and we saved .0015" fret material and half the time. Awesome.

10. The first fret is perfected and we know which setting in combination with the glide strip and possibly a layer of scotch tape got us there.
    Use this same setting and the glide strip or the glide strip plus one layer to scotch tape to do the rest of the frets.

What if we have a Heel Ramp?

We do every fret including the heel frets as above.

Then… we need s 6" long Stainless-Steel Engineer Ruler with sharp square corners.

I won't write this out because this is a very visual learning subject. Watch the video.

Part Two – Heavy Leveling optionally using the destructive sanding beam to rough it in and FretMaestro to refine it to precision symmetry:

Refer to the Video using the link in the description below:
"Fret Level using a Sanding Beam – what no one else shares with you."

Then follow up by going back the tutorial above on Light Leveling.

I will make a shorter version "Sanding Beam How To" video asap.