

## Pocket RCT 3.0x and 4.x manual Addendum

### Smart Partials

New for this version is “Smart Partials”. This feature takes a profile of each piano in Chamleon 2, and chooses the optimal tuning partial for various areas of the piano, especially the bass. This feature is always on in “Easy” mode in Chameleon 2, and can be turned on or off in “Advanced” mode. Ch2 is in Advanced mode unless the popup menu in the upper right hand corner of Ch2 says “Easy”.

To see the partial choices Ch2 is making for the current piano tap the Advanced button in Ch2. Turn Smart Partials on or off with the checkbox indicated. The partial popup menus are grayed out when Smart Partails is chosen.

### RPT Tuning Exam feature

See the file ‘Scoring the RPT Tuning Exam’ for complete information on how to score the exam.

### User Temperaments feature

Installing this version installs a new file in your Pocket PC's "My Documents" folder called:

User Temperaments.hist (the .hist extension is hidden on Pocket PC)

This file's historical temperaments list can be used just like the built-in Historical Temperaments to covert any tuning record to a non-equal temperament.

Converting a tuning with User Temperaments uses exactly the same procedure as the built-in Historical Temperaments. First, calculate a tuning, then tap View Tunings. Tap and hold on the tuning you want to convert. Then choose "User Temp" in the popup menu.

There are three User Temperaments shipped with Pocket RCT. The "Test Temperament" is only for testing (not a real temperament). Vallotti-Young is exactly the same temperament as in "Hist Temp" and is there for comparison. The other is a Jim Coleman Sr. very mild well-temperament (within 2 cents of equal temperament).

If you have a User Temperament file from RCT 3.5.0x or later for Mac or Windows you can transfer it directly into Pocket RCT 3.0x. The only change you may want to make is to add the year and type fields. These files can then be transferred back and forth between RCT Mac/Win and Pocket RCT without modification.

You can add your own custom temperaments as follows.

1. Start Pocket RCT 3.0x.
2. Choose File menu, then "Open File".
3. In "Type" popup menu choose "User Temp Files (\*.hist)"
4. Tap on "User Temperaments".
5. Tap and hold on the User Temperament to select. If you are starting with a fresh copy you might want to tap on the 4th item from the top, which is the first blank temperament.
6. Choose "Edit User Temp".
7. Enter the name of your temperament along with the type (more on that later), the year, and the 12 cents offsets as needed.

To enter the "Type" field, enter a descriptive letter such as "W" for Well Temperament, then a number from 1 to 999 to indicate the number of the temperament. Up to four letters or numbers can be entered here. This indicator will be placed in the header of each tuning you calculate with this user temperament.

We suggest that you not duplicate the type fields in the 59 historical temperaments already built into RCT. Rather, start your temperaments at a higher number. We also suggest that you keep the standard capital "W" for Well temperament, etc.... Make sure your temperaments each have a unique "Type". Future version features may not work well if a single indicator code is used for more than one temperament.

Pocket RCT can currently use only one user temperament file, and it must be called "User Temperaments.hist" and be in the My Documents folder. This allows for 240 user temperaments. If anyone needs more than that please contact RCT support.

There are ten temperaments in this file (three filled, 7 blank). To add more, tap and hold a blank one, then copy and paste.

It is beyond the scope of the Pocket RCT documentation to expound on how to determine either the cents offsets for certain temperaments, or which temperaments to use in which situations.

New for Pocket RCT v4.0.x

## Custom Equalizer

Custom Equalizer (Custom EQ or CEQ ) is an advanced tool that helps the aural tuner with fine adjustments in the tuning calculation. CEQ's form is that of a graphic equalizer. In its simplest application it is very easy to learn to use, but has far more capability than meets the eye. A complete explanation of Custom EQ is beyond this manual but is available in printed and PDF form in the document called "Getting started with Custom Equalizer", available on the web.

### Brief Intro TO CEQ

Start CEQ either from the tools menu or from the Custom EQ button in Chameleon. CEQ is split into three primary screens, bass, midrange and treble, each of which is accessible from the tabs at the bottom of the screen. The midrange and treble tabs show the same 9 tuning styles as are in Chameleon, but shown as 9 radio buttons.

CEQ is primarily useful if you find a standard OTS which you would like to change slightly in one section. In that case, choose the desired OTS, then go to the screen that shows the area of the piano you want to adjust, for instance treble tab for A6. If your aural tests show that A6 is a little flat on a certain piano, tap the A6 slider and move it up. Notice the guides for A6, the pointers for the 4:1 double octave and 4:2 single octave. Positioning the slider right next to these pointers will zero beat that interval. The number below the slider shows the difference from the anchor interval (the pointer in black). The graph below the sliders shows the difference between the standard tuning and the "tweaked" tuning. Tap one of the 9 OTS radio buttons to restore the default slider positions.

Tap the "Calculate" button to create a tuning and go to CyberEar. For User Settings, User Limits and many other advanced features please see the document "Getting started with Custom Equalizer" available from [www.reyburn.com](http://www.reyburn.com).

## Custom Overpull

This new feature in v4.0x lets you set up your own custom overpull chart. To choose Custom instead of the Standard overpull in CyberEar, tap the tuning mode popup menu (usually says "Fine Tune") and choose "Pitch Raise". In the Pitch Raise dialog is a new popup menu with the choice of "Standard" or "Custom". Choosing "Custom" will load a set of editable overpulls.

The custom overpull numbers are stored in a file called "Custom Overpull". To edit this file, tap "File" menu, "Open File". In the "Type" popup menu choose "Pitch Raise Overpull Files (\*.prop)". Then tap the file named "Custom Overpull". After opening this file select "Standard RCT overpull..." (Ignore the "Yamaha Gh1.." record, it is for future use). Choose "CyberEar" in the "Tools" menu.

Ignore any “off pitch” warnings by tapping ok. Changing the overpull number for each note is done by editing the number in the “tune” box on the left, then tapping “save” cents button. The chart starts with the standard overpulls and can be modified to suit your needs.

Once you have edited the Custom Overpull chart, choose “File” menu “Open file” and choose “Pocket RCT Library” or some other tuning file, thus closing the Custom Overpull file and making sure the changes are saved. Don’t try to tune a piano with Custom Overpull as the tuning file, it won’t work.

Note: Custom Overpull expects the Lowest Plain Wire Note overpull to be B2. Even if you commonly tune pianos where the LPWN is not B2, set the overpull chart up as if it were B2. Once this is done correctly CyberEar will dynamically adjust the overpull of B2 up or down the piano to match the LPWN of each piano. CyberEar use the overpull data from B2 and next 5 notes above B2 as the 5 notes above the break (assumed to be the same as LPWN).