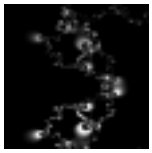


QuickStart

This chapter provides a hands-on, whirlwind tour of MetaSynth's highlights. The QuickStart has something for everyone: MetaSynth newcomers and experienced users alike. While some of the material is quite basic, there are advanced techniques as well. If you hate to read manuals, this is a good place to make MetaSynth's acquaintance.

If you are new to MetaSynth, you might want to check out the **Overview** chapter before proceeding with the QuickStart though it is by no means a requirement. Our goal in this QuickStart is to let you get your feet wet and quickly see the neat things MetaSynth can do. We don't slow you down with explanations of material covered elsewhere in the manual. Don't worry if you feel a bit lost at first. MetaSynth's is a strange, new world.

We recommend that everyone take the **self-tour**. It shows off some pretty nifty sounds, many of which make use of new features like custom tunings/scales.

This chapter only scratches MetaSynth's surface. Remember that there are several tutorials provided on the CD which demonstrate many valuable techniques. A summary of the tutorials is provided at the end of this manual.

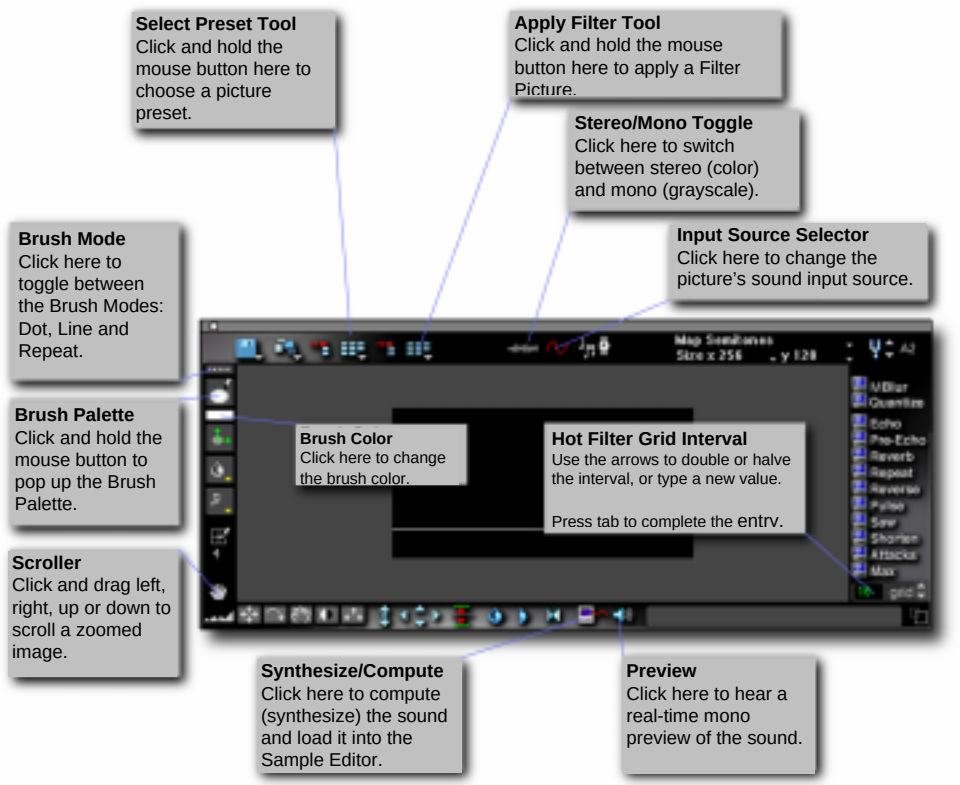
A Simple Convention

In this chapter, we use a simple convention to distinguish explanatory text from steps to execute. Steps to execute are marked with bullets.

- Get ready to have fun!

The Image Synth

If you are new to MetaSynth, take a look at the picture of the Image Synth Palette below. It points out Image Synth interface features you will use in the Self-Tour and first lessons.



Pre-Flight: The Self Tour

In this section, you will open the Self-Tour preset library and listen to a variety of sound pictures. The Self-Tour will give you an idea of the kinds of sounds that you can create in MetaSynth.

During the course of the Self-Tour, you will occasionally be prompted by MetaSynth to find a file. Don't worry if you don't understand why. The dialog box will have the name of the file you are looking for. It will be found in either the *Input Samples ƒ* or *Instruments ƒ* of MetaSynth's home directory. Some pictures in the Self-Tour have comments in blue. If you are not sure what they mean, don't worry.

- Launch MetaSynth.
- Click on the **Image Synth Palette** to bring it to the front (if it isn't already).
- Type 'o' to open a preset library.
- Choose the file *Self-tour.presets* which is found in the *QuickStart* folder in MetaSynth's home directory.
-  Click on the **Select Preset** tool to pop-up a menu of the library's presets.

  Presets, also called *sound pictures*, are pictures stored in a MetaSynth preset library, such as the file you just opened. Presets contain information about how MetaSynth should interpret the image when using it to synthesize a sound.
- Choose the first preset. It points out the most important Image Synth controls.
- Choose each of the presets in order, and listen to them.

  There are two ways to listen to sound pictures:

   You can click on the **Synthesize** icon to compute a full-fidelity, stereo sound.

   You can click the **Preview** icon to hear a real-time mono preview at reduced fidelity.

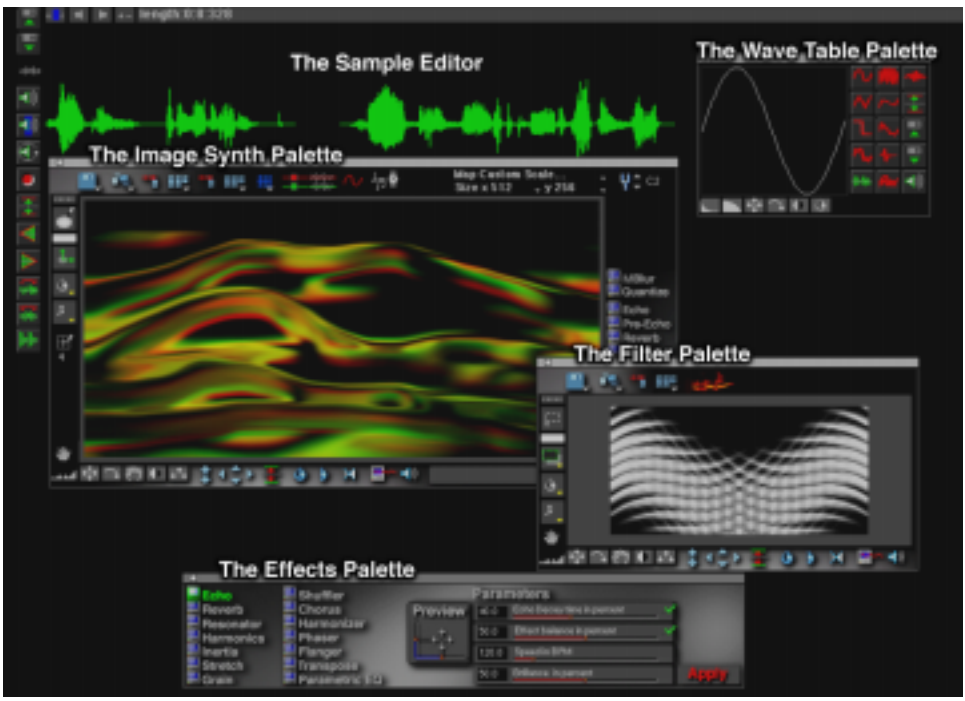
  IMPORTANT! Don't forget to synthesize (not preview) pictures with red & green in them to hear the impressive full-stereo impact.
- Quit from MetaSynth before progressing to the next lesson.

MetaSynth Basics

Setting up the Work Space

- Launch MetaSynth by double-clicking on its icon in the Finder.

When MetaSynth first launches, the **Sample Editor** (the area where the green waveform is displayed) and all of the MetaSynth palettes are visible: the **Image Synth Palette**, **Filter Palette**, **Effects Palette** and the **Wave Table Palette**. When you quit from MetaSynth, it remembers which palettes were open and opens only those ones the next time you launch.



MetaSynth and its palettes

Hiding and Showing Palettes

An individual palette may be hidden by clicking in its close box. To show a hidden palette or bring a palette to the front, choose its name in the **Windows** menu or press the command-key equivalent, which is displayed beside the item's name in the menu.

The **Sample Editor** does not have a close box but can be hidden by choosing **Hide Sample Editor** from the **Windows** menu or by pressing **command-w**. Unlike most other Macintosh applications, MetaSynth treats **command-w** as a toggle to either show or hide the **Sample Editor**.

Note *Unlike other Macintosh applications, MetaSynth doesn't ask you to save your changes when you quit. Remember to save your sounds or add your presets to a library if you want them saved.*

The black background which hides the Macintosh desktop and other applications is the Sample Editor's background. The black background is helpful as it makes dim pixels easier to see in the Image Synth and Filter Palette. If you want access to the windows open in other applications or the Macintosh desktop, you may hide the Sample Editor.

- Close the **Filter**, **Effects** and **Wave Table** palettes.

  If you are not sure which palette is which, refer to the illustration above, or choose the palette's name from the **Windows** menu to bring it to the front.

- The **Image Synth** and **Sample Editor** should both still be visible.

- Click and drag the Image Synth Palette's grow box until the window is a convenient size.

-  Click on the **Magnify**/**Zoom** tool to make the picture a comfortable size while keeping the entire picture in view. Use the grow box if needed. You can use the plus and minus keys as shortcuts for zooming in or out.

  MetaSynth has no scroll bars. If the gray area which surrounds the picture disappears, it is an indication that not all of the canvas (the picture) is visible. You can use the Scroller hand to scroll the picture or press the spacebar and drag the canvas directly to scroll it.

Lesson 1: Getting Acquainted

When MetaSynth is first opened, the canvas area displays the following picture, a single horizontal white line that runs across the width of the canvas:

In the Image Synth, the vertical axis represents pitch and the horizontal axis time. This picture plays a single pitch for the time specified by the **Tempo/Duration Tool** (described later). The red sine wave displayed at the top of the palette indicates that the **Wave Table** is the current input source for the picture.

Preview & Tips Display

-  Press the **Preview** tool to audition the picture. An orange dot rides along the top of the picture as the sound plays.
- Press the **return key** as a shortcut for clicking on the **Preview** tool. You can stop playback by pressing it a second time.
- Move the mouse over the canvas area, and observe the **Tips Display** area located at the lower-right portion of the Image Synth palette. The pitch and time associated with the cursor position are displayed in the **Tips Display** when the mouse is over the canvas.
-  Press either the up or the down **Octave Transpose** arrows and preview the picture.

  If you lose the line off the canvas, it can be recovered by typing ‘z’ or by typing ‘.’ (which is the shortcut for the **Add Fundamental** command found in the Image Synth’s **Pitch and Harmonics** submenu).
- Type ‘z’ to undo the transposition.
- Move the mouse over each of the tools, and note the **Tips Display** for each one.

Play the Current Sample

The green waveform towards the top of the screen is the display of the currently loaded sample. At start-up, a simple waveform is loaded by default.

The Sample Editor has two toolbars: one found above the waveform display, the other at the left edge of the screen.

- Press the **enter key** to play the Sample Editor's current sound.
- Mouse over the tools, and observe their names displayed in the Sample Editor's **Tips Display** area which is located at the upper-right of the screen.
-  Press the **Open Sound** icon.
- Navigate into the Input Samples folder in MetaSynth's home folder, and open the sound *Ana MetaSynth Speech*.
-  Press the **Play Sound** icon to hear the sound.
- Press the command key and drag over the beginning of the sound.
-  Press the **Play Selection** icon to hear the portion you selected.

Input Sources: Sample, Wave Table, Procedural Synth

MetaSynth can use several different sound sources to play Image Synth sound pictures. In this section we explore some of them.

Sample Input Source

-  Click on the Input Source Selector. (If you have changed the input source, the icon will be that of the chosen input source. Sine/Wave Table is the default source).
- 

Choose **Sample** from the list of available input sources which appear:
-  Press the **Preview** icon to audition the sound.
- Hold down the **option and shift** keys and press the up arrow of the Octave Transpose tool, and play the sound.

Note *Like many graphics applications, when you hold down the option key, a copy of the original picture is left behind. Pressing the shift key when clicking Octave Transpose transposes the selection (or the entire picture if there is no selection) by a fifth.*

Wave Table Input Source

- Click on the **Input Source Selector** and choose **Wave Table**.
- Preview the sound. You will hear two sine waves a fifth apart.
- Choose **Wave Table** from the **Windows** menu.
- Click on any of the wave shaping tools and drag to the right.
- Click on the **Image Synth Palette** to bring it back to the front.
- Preview the picture.

Procedural Synth

- Click on the **Input Source Selector** and choose **Procedural Synth**.
- Choose **Procedural Synth** from the **Sounds** menu to open the Procedural Synth.
- Modify the **Modulator** wave by applying any of the wave shaping tools.
- Experiment with different amount and frequency settings by clicking on the numbers and dragging up or down.
-  Click the OK icon button to confirm the settings.
- Preview the picture.
- Re-choose **Wave Table** with the **Input Source Selector**.

We will come back to the **Instrument** and **Looped Sample** input sources later.

Stereo & Mono, Applying a Filter

In the Image Synth, grayscale images play back in mono and color pictures play in stereo. To hear the sound in stereo, you must synthesize the sound. Preview plays back a mono rendition of the sound.

Filter pictures can be applied to the canvas image to modify it. The filter is applied by multiplying the pixels together. This process is described in detail in the Image Synth chapter of the manual.

-  Click on the **Mono/Stereo Toggle** to turn the picture into a stereo picture.

  The picture becomes color. The white line turns a shade of yellow. Red/Green balance determines panning. Yellow plays in the middle since it is the combination of red, which plays the left channel, and green, which plays the right.

-  Press the **Apply Filter** tool, and choose the filter picture which fades from red to green by selecting it in the picture list which pops up.

  The picture now fades from red to green.

- Choose the input source of your choice using the Input Source Selector (Wave Table, Sample, or Procedural Synth).

-  Synthesize the sound by clicking the **Synthesize** tool.

  The previously loaded sample has been replaced by the computed sound, and the sound starts playing on the right channel and pans to the left.

- Press command-z to restore the previously loaded sample.

Brushes and Tools

The Image Synth's left-hand toolbar contains a number of painting tools and menus that modify the note pitches.

- Choose **Wave Table** with the **Input Source Selector**.
- Open the **Wave Table Palette**.
- Click on the sine wave tool and drag to the right to return the waveshape to a sine wave.
- Bring the **Image Synth** to the front
- Press the **delete key** to delete the canvas image.
- Click on the **Choose Brush Tool** (also called the **Brush Palette**).

  This tool displays the icon of the active tool. The **Air Brush** icon (shown below) will be on display unless you have chosen another brush tool.

-  Choose the **Air Brush** if it isn't already selected.

-  Double-click the **Brush Size** tool. Make the brush 5 pixels wide (the upper number) by 3 pixels high with a **minimum spacing** of 3.

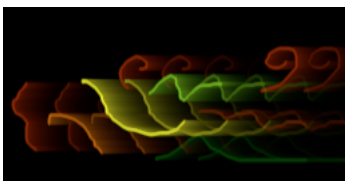
-  Click the OK icon button.

-  Click on the **Brush Mode** tool until the **Line Mode** icon is displayed.
- Draw a few simple lines and curves, periodically changing the brush color by choosing a color from the Brush Color Selector. You will have something like this:

- **Preview** or **Synthesize** the sound. (It won't sound like much yet.)
- Click on the **Frequency Map** selector (it will be displaying the text **Map Semitones**).
- Choose **Micro32**. (This Frequency Map maps 32 pixels per whole tone.)
- Preview the sound.
-  Click on the **Master Tuning** tool's up arrow to tune the picture to A3.
- Preview or Synthesize the sound.
-  Click on the **Hot Filter Grid Interval** (at the lower-right of the Image Synth) and type 32. Press the tab key to confirm the value.

  If you need to correct your entry, do not type the delete key. It will delete your picture. Press the tab key until the number is displayed with green, and enter the new value.

- Press **Echo** in the Hot Filter list once or twice.
- Press **Reverb**.
- The picture will look something like this:



- Preview or Synthesize the sound.
- Click on the **Frequency Map** selector again and choose **Custom Scale**.
- Enter '16' for the **Divisions Per Octave**.
- Select **Linear Subdivisions**.

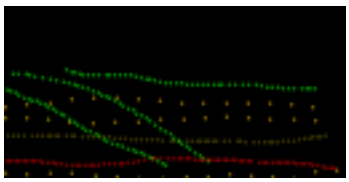
- Option-click **Compute Ratios**.

  Option-clicking generates the harmonic series rather than a scale with linear or exponential subdivisions.

-  Click the OK icon button.
- Listen to the picture.
- Experiment with higher and lower Master Tuning settings (A1, A3, etc). Option-click to increment this reference pitch by semitones.
- Click and drag some of the tools in the lower toolbar and observe their effects, and listen to your changes.
-  Change the brush mode to **Dot Mode** (the usual mode) by clicking the **Brush Mode Toggle** until you see the **Dot Mode** icon.
- Delete the current picture by pressing the delete key.
- Paint on the canvas using different brush colors.
- Double-click the **Brush Size** tool and enter a m**inimum spacing** setting of 16. Press the OK icon button.
- Paint and observe the effects of changing the minimum spacing setting. Feel free to experiment with other minimum spacing settings.
-  Optional step: switch to **Line Mode** and note the effect that the minimum spacing setting has.

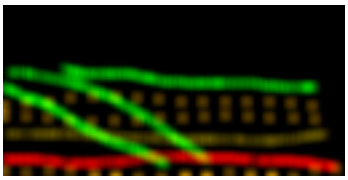
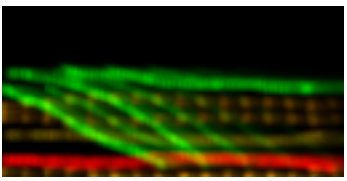
  In **Line Mode,** the minimum spacing setting determines the minimum distance between vertices.

-  If the image is dim, press the Normalize tool to brighten it. Here is an example image:

-  Choose **Blur More** from the **Processes** submenu in the left-hand toolbar. (**Normalize** again if necessary).

Note *Thick pixel clusters like this work well with Custom Scales based on the harmonic series and sometimes with tunings like Micro32. In semitone and major scale frequency maps, such pictures are pretty dissonant.*

- After blurring the image looks like this: 
- Apply **Echo** and **Reverb** again and synthesize (not preview) the picture.
- The result is: 

Adjusting the Tempo

There are two ways to change the speed at which a picture plays back: dragging the **Tempo/Duration Tool**, or by editing the settings of the **Tempo/Duration Dialog Box**.

-  Click and drag the **Tempo/Duration Tool** to the left or right. While the mouse is down, the sound picture's duration is displayed.
- Play the picture at its new tempo.
- Double-click the **Tempo/Duration Tool** to open the **Tempo/Duration Dialog**.
- Enter a new tempo. Click OK, and play the picture.

Creating a Preset Library

-  Choose **New Presets File** from the Image Synth's **File** submenu.
- Save the new file to the location of your choice.

Adding/Deleting Presets

-  Click on the **Add Preset** icon to add the canvas image to the preset library.
- To delete a preset: hold down the **option key,** and click on the **Select Preset** tool. The cursor becomes an X cursor. Choose the preset to delete it.

Accessing the Previous Library

To access the presets of the preset library previously open in the current work session:

- Hold down the **command key**, and click on the **Select Preset** tool. Observe that the presets of the previous preset library are displayed.

- Select any preset.
- Click on the **Add Preset** icon to add the canvas image to the preset library.

Voila! A quick way to copy presets (or filters) between libraries!

Intermediate Techniques

Lesson 2: Preparing a Sound with the Effects and Filter Palettes; Looped Sample Mode

In this section, we delve into the **Effects** and **Filter Palettes** to convert a spoken syllable into a pitched sound source. The **Grain**, **Resonator**, and **Harmonics** effects are use to prepare the sound by pitching it and giving its general characteristic. We use the **Filter Palette** to give the sound a harmonic/filter envelope.

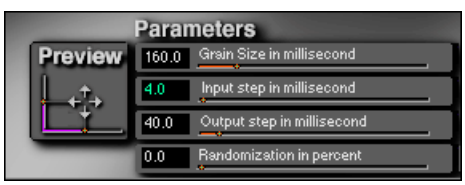
Sample Editing

We use the sound file **Ana MetaSynth Speech** in this lesson.

-  If the sound isn't open, choose **Open** from the **File** menu, and click on the Recent Files icon. Choose the file from the list.
- Hold down the **command key** and drag over the first two syllables to select "Welcome."
- Audition the selection by pressing the **enter key**. If the selection wasn't right, try again.
- When you have selected "Welcome", type **command-g** (or choose **Crop** from the **Edit** menu) to crop the sound to the selection.
- Choose **Save As** from the **File** menu, and save the sound as *Ana Quick.*
-  Click on the **Time Reverse** icon.
- Click the **Time Reverse** icon again to return the sound to its original orientation.

The Effects Palette: Grain, Resonator and Harmonics

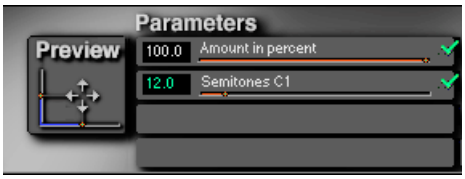
- Bring the **Effects Palette** to the front by choosing it in the **Windows** menu.
- Click on the **Grain** effect.
- Click on **Preview** and drag the mouse around the screen.
- Enter the following settings: **Grain Size**: 160.0; **Input Step**: 4.0; **Output Step**: 40.0; **Randomization**: 0



- Click **Apply**.

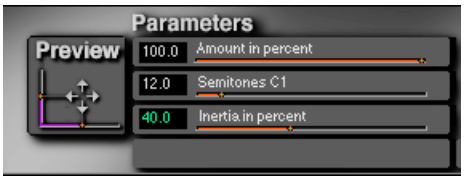
  Note! Applying an effect changes the sample loaded in the Sample Editor. You can use the **File** menu's **Undo** (**command-z**) to undo the effect.

-  Click the left-hand toolbar's **Normalize** icon.
- Click on the **Resonator** effect and enter these settings: **Amount in Percent**: 100; **Semitones**: 12.0



  C1 was chosen because an Image Synth frequency analysis of the sound revealed that C was a prominent harmonic in the sample.

- Click **Apply**.
- Click on the **Harmonics** effect and enter these settings: **Amount in Percent**: 100; **Semitones**: 12.0; **Inertia in Percent**: 40.0



- Click **Apply**.
- Click the left-hand toolbar's **Normalize** icon.
- Choose **Save As** from the **File** menu and save the sound as *Ana Pitched*.

  The **Harmonics** effect uses the Wave Table palette's waveform to derive the final effect. You can create very complex sounds by experimenting with different Wave Table settings.

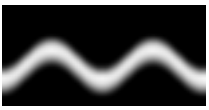
The Filter Palette

- Bring the **Filter Palette** to the front by choosing it in the **Windows** menu.
-  Click on the **Analyze Current Sample** icon.

Note *The image drawn in orange is a frequency analysis of the currently loaded sound (*Ana Pitched*). The image has no effect on the filter but acts as a guide or template over which a filter can be overlaid.*

The Filter Palette's tools are nearly identical to the Image Synth's, **but** the speaker icon does not preview the filter; it plays the unfiltered sample.

-  Click on the **Choose Filter** icon and choose this filter:



- Click on the Synthesize icon to apply the filter.

The resulting sound only contains the frequencies where the filter and the unfiltered sound (the orange picture) overlap.

- Undo the filter application by typing **command-z.**
-  Nudge the filter up or down to adjust the overlap.
- Apply the filter.
- Repeat the previous 3 steps, if necessary, until you have a sound you like.
- Save the sound as *Ana Filtered*.

Using the Sample (Looped Sample Mode)

- Bring the Image Synth to the front.
- Type 'o' to invoke the **Open Preset Library** dialog box.
- Open the library **QuickStart.Presets** found in the **QuickStart** folder of MetaSynth's home directory.
- Click on the **Preset Selector** and choose this preset (the first in the library):

- Click on the **Input Source Selector**, and choose **Looped Sample**.
- Preview the sound.
- Double-click the **Tempo/Duration Tool**.
- In the **Tempo/Duration Dialog**, click the button **Fit Duration to Current Sample**.
-  Click the OK icon button, and play the sound.
- Command-drag in the Sample Editor's waveform display to select all of the sample except for the beginning. We want to give the sound a sharp attack.
- Type **command-g** to crop the sound.

- Choose **Sample** as the Input Source.
- Preview the sound picture and note the difference between how it plays in Sample and Looped Sample modes.

  In Looped Sample mode, the notes trigger points progressively later in the sample rather than triggering it from the same start point each time.
- Press the **delete key** to delete the image.
- Switch back to **Looped Sample** mode.
- Type '.' to draw a line across the canvas. '.' is a shortcut for the **Add Fundamental command** found in the Image Synth's **Pitch and Harmonics** submenu.
- Preview the sound and let the picture play through several iterations. Note that the sample plays continuously.
- Choose **Sample** from the Input Source Selector.
- Click the preview icon and notice that the sample plays through once and stops playing.

Stereo-ize the Sound Picture

- Click on the **Stereo/Mono Toggle** to colorize the picture.
- Press the **command key** (temporarily changing the brush to the selection tool) and select only the region containing the notes.
- Click on the **Filter Selector** and choose any color Filter Picture that has vertical red/green changes.
- Select **Looped Sample** as the input source (if it isn't already).
- Synthesize the sound and note the stereo effect.

Lesson 3: Instruments and Sound Convolution Techniques

Instruments

- Choose **Open Instrument** from the **Instruments** menu.
- Open the instrument *FemaleSoftVoices* from the *Female soft voices m f* folder found in the Instruments folder in the MetaSynth home folder.
- The Instrument Dialog is opened and displays the samples in the Instrument.
- Click on any of the speaker icons to audition the corresponding samples.
-  Click the OK icon button.
- Choose the following preset (the second in the library) from the **QuickStart.Presets** library:

- Control-click anywhere in the picture to hear the note played by that pixel location. Note that the sample's name is displayed in the **Tips Display** while the mouse is down.
- Press the **return key** to audition the picture.
- **If the preview stutters or fails**, select a small portion of the picture (by command-dragging) and press the return key to audition the selection.
- Type 'd' to de-select the selection if you made one in the previous step.

Note *The CD contains many, many more instruments and preset files which we hope you will explore.*

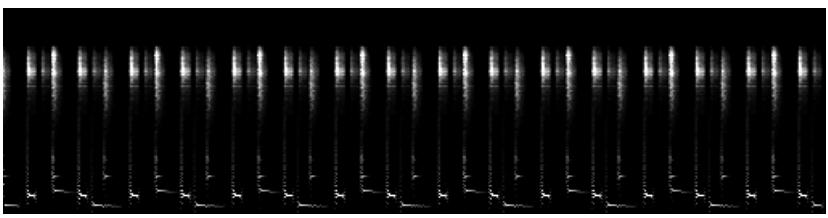
- Press the option key and select the instrument's name in the Instruments menu to unload the instrument from memory.

Lesson 4: Filtering Mozart with Drums (Techno-Mozart)

- Choose this preset, the third one: 

Note *The TR808 drum instrument may be loaded automatically. If not, find it in the* ***Instruments*** *folder of MetaSynth's home directory.*

- Choose **512** from the Image Synth's **Size x** submenu.
- Click on the **Hot Filter Grid Interval** and type '64'.
- Click on **Repeat** in the Hot Filter list to fill the canvas with the drum pattern.
-  Click on the **Synthesize** icon to compute the sound.
- Type 'n' (or choose **Analyze current sound** from the Image Synth's **File** submenu).
- The analysis will resemble following picture:



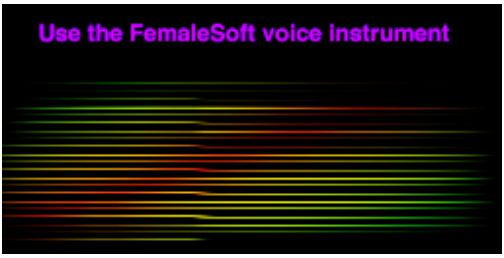
- Press 'c' to copy the picture.
- Bring the **Filter Palette** to the front.
- Type 'v' to paste the image you copied.
- Look in the Sample Editor's upper toolbar and note the length of the sound (about 7.8 seconds).
- Choose **Open** in the main menubar's **File** Menu, and open the sound *Requiem Mozart.L* in the *Input Sample ƒ*.
- Use the command key and select about 7.5 seconds of the sound.
- Type **command-g** to crop the sound.
- Type **command-n** to normalize the sound.
- Press the Filter Palette's compute (Apply Filter) icon.
- Type **command-z** to restore the sound.

-  Press the Filter Palette's **Octave Transpose** up arrow, and apply the filter.

Note *The Filter Palette and Image Synth have slightly different frequency ranges. The Image Synth with the default Master Tuning setting (A2) has a range which starts at A0. The Filter Palette starts at A –1. When pasting a picture copied from the Image Synth, you may generally want to transpose it up one octave to have the frequencies match.*

Lesson 5: Using Convolve for a Vocoder Effect

- Open the instrument *FemaleSoftVoices* from the folder *Female soft voices m f* found in the **Instruments** folder of MetaSynth's home directory.
- Choose this preset:



- Synthesize the sound picture by pressing the Synthesize tool.
- Choose **Convolve** from the main menubar's **Morph** menu.
- Choose the sample file *Ana MetaSynth Speech*. (A quick shortcut is to choose it from the recent files menu in the Open Sound dialog box.)

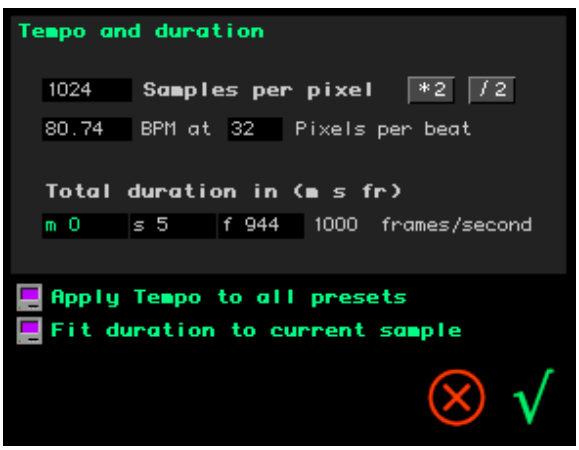
Note *Convolution is a CPU-intensive task. On slower machines, this may take a while to compute.*

MetaTip *To cancel a time-consuming operation, click in the menubar.*

Lesson 6: Building and Using Grids

When creating tonal music, it is often useful to create rhythmic and/or harmonic grids to provide a framework. The Blue Channel can be used for such templates. The Blue Channel's contents are ignored by the Image Synth when it synthesizes images. It can also be used, as you saw in *Self-Tour.presets*, to display text comments. Only color pictures have a blue channel.

- Bring the **Image Synth** window to the front.
- Delete the canvas image by pressing the **delete key**.
-  Click on the **Blue Grid** submenu and choose **Delete Blue Channel**.
- Choose **Semitones** from the **Frequency Map** selector.
- Make sure that the Image Synth is in color mode by clicking on the Mono/Stereo toggle, if necessary.
- Set the canvas width to 256 and the height to 128 by choosing these values from the **Size X** and **Y** pop-up menus at the upper-right of the Image Synth palette.
-  Double-click the **Tempo/Duration icon** to open the Tempo/Duration dialog.



- Enter 16 as the setting for Pixels per Beat
- Enter 160 as the BPM (tempo) setting.

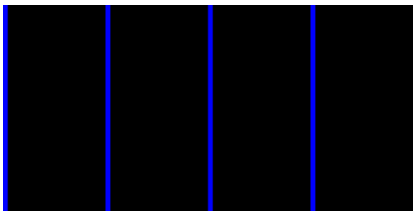
  MetaSynth may adjust this value slightly which is ok.
-  Press the **OK** icon button.

Creating Rhythmic Grids

In this exercise, we create a rhythmic grid with thick blue lines every 4 beats and thin blue lines every beat: a convenient grid for working in 4/4 time signatures.

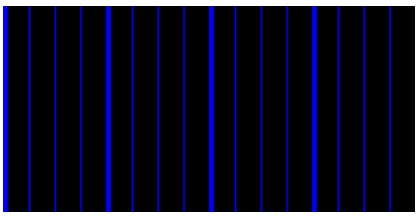
- 

Click on the **Hot Filter Grid Interval** and type ‘64’ (4 beats at 16 Pixels Per Beat).
-  Click on the Blue Grid submenu, and choose **Draw Blue X Grid**.
-  Click on the **Channel Edit Mode Selector** icon.
-  Choose the Blue Channel only mode. In this mode, editing commands apply only to the Blue Channel. The default mode is Red and Green only (for color pictures).
- Press option-right arrow two times to thicken the lines (right-arrow moves the selection; the option key leaves a copy behind).



- 

Enter 16 as the **Hot Filter Grid Interval**.
- Choose **Add Blue X Grid** from the **Blue Grid** submenu which yields a Blue Channel with thick lines at measure boundaries and thin lines at beat boundaries.



-  Click the **Add Preset** icon to add the preset to the current preset library.

Creating Harmonic Grids

In this exercise, we create a simple chord structure and paste it to the Blue Channel. This technique provides a template over which notes can be placed or filtered. In this example, we create an arbitrary chord progression. You can, of course, use more interesting harmonic grids.

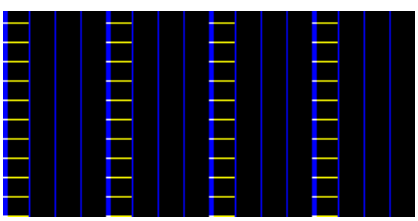
- Click on the Channel Mode Selector.
-  Choose Red/Green only mode.
-  Turn on the **Brush Grid** by clicking on the grid icon. (It is on when the icon is green).
- Click on the **Brush Grid Interval** and enter 16 (one beat at 16 Pixels/Beat).
-  Choose the **Pen Brush** from the **Brush Palette**.
-  Double-click the **Brush Size Tool**.
- Set the brush to be 1 pixel high and 16 pixels wide.
- Set the **Hot Filter Grid Interval** to 64 (one measure).
-  Click on the **Brush Mode Toggle** until **Repeat Mode** is active.

  We will create a grid for the chord sequence Am, D, C, D with the chords changing on the beat. (You won't get a Grammy, but…)
- Press the Caps Lock key (which results in octaves being entered while in Repeat Mode).
- Move the mouse near the first grid line and click on any A.

  The pitch is displayed in the **Tips Display** at the lower-right corner of the Image Synth.

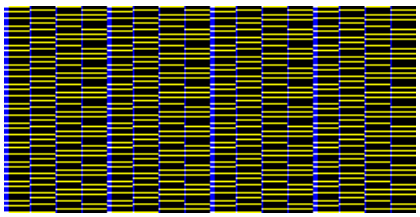
Note *Zoom the picture and grow the Image Synth window if it makes entering the notes easier.*



- Click on any pixel which corresponds to a 'C' in the same column as the first note.

- Click on any ‘E’ in the first column.
- Proceed to the next column and enter the notes: D, F#, A.
- Proceed to the next column and enter the notes: C, E, G.
-  Press the command and option keys to pop up the brush palette.
-  Choose the **Selection Tool**.
- Drag a rectangle around the second column (the **Brush Grid** keeps the selection aligned to the grid).
- Enter 32 as the **Hot Filter Grid Interval**.
- Type **option-shift-right arrow** which moves the selection by the Hot Filter Grid Interval. Repeat this until the picture is filled.

  The picture should look like this:

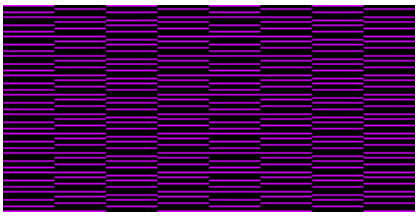


- Click on the **Add Preset** tool to add this picture as a preset.
- Type ‘d’ to deselect the selection.
- To create a grid that contains both the harmonic and rhythmic data, type ‘c’ to copy the picture.
- Press the delete key to delete the Red/Green channel (the sound channel).
- Choose **Paste To Blue Channel** from the **Blue Grid** submenu.

Using the Blue Grid as a Harmonic Tool

- Reselect the last version of the preset saved (with the harmonic and rhythmic data).
- Choose **Delete Blue Channel** to remove the rhythmic grid.
- Press ‘c’ to copy the harmonic grid (the yellow pixels).
- Press the delete key to delete the Red/Green layer.

- Choose **Paste to Blue Channel** from the **Blue Grid** submenu.



- Turn off **Repeat Mode** by clicking on the **Brush Mode Toggle** to choose **Line Mode** or **Dot Mode**.
- Turn Caps Lock **off.**
-  Choose either the **Pen**, **Air**, **Attack** or **Note** brush.
- Set the brush size to be several pixels high and the width of your choice.
- Draw freely in the Red/Green Channel.
- Experiment with different brush colors and sizes. Use any of the available tools.
- Experiment with different brush size/brush grid interval combinations. For example, set the grid to 4 and the brush width to 3 or 4 to enter 16th notes. Double the values for eighth notes, etc.
- Choose **Filter with Blue Channel** from the **Blue Grid** submenu.

  Voila! Your picture is now consistent with the harmonic structure you entered. Of course, you can use these tricks with any harmonic and rhythmic structure that you'd like.

  If you only want to filter part of the picture (to allow leading tones and other notes that aren't in the chords that make up the blue grid), you can use the selection tool and select only that portion of the picture that you want filtered by the Blue Channel.

Moving On

Before you leave the **QuickStart**, you may want to play the rest of the presets in the **QuickStart.Presets** file. These sound pictures demonstrate sounds made with some advanced techniques to give you an even greater sense of what the Image Synth can do.

Ideas For Exploration

You've now had a brief tour that, hopefully, has given you an idea of MetaSynth's possibilities. If you haven't read the **Overview** section, now would be a good time to take a look at it.

There are several detailed tutorials provided on the CD to show you more useful techniques that will help you get the most out of MetaSynth. The appendix provides a list of the provided tutorials with a brief synopsis of each.

The folder you installed on your hard disk contains a variety of preset and filter libraries worth exploring as well as highlights from the Custom Scales library provided on the hard disk. The sample folder contains a number of sounds that work great as input samples for the Image Synth.

Don’t forget to explore the hundreds of megabytes of MetaSynth Instruments provided on the CD that range from beautiful, natural samples of acoustic instruments to wild electronic and hybrid sounds. Most instruments include sample preset libraries that will give you a sense of their possibilities.