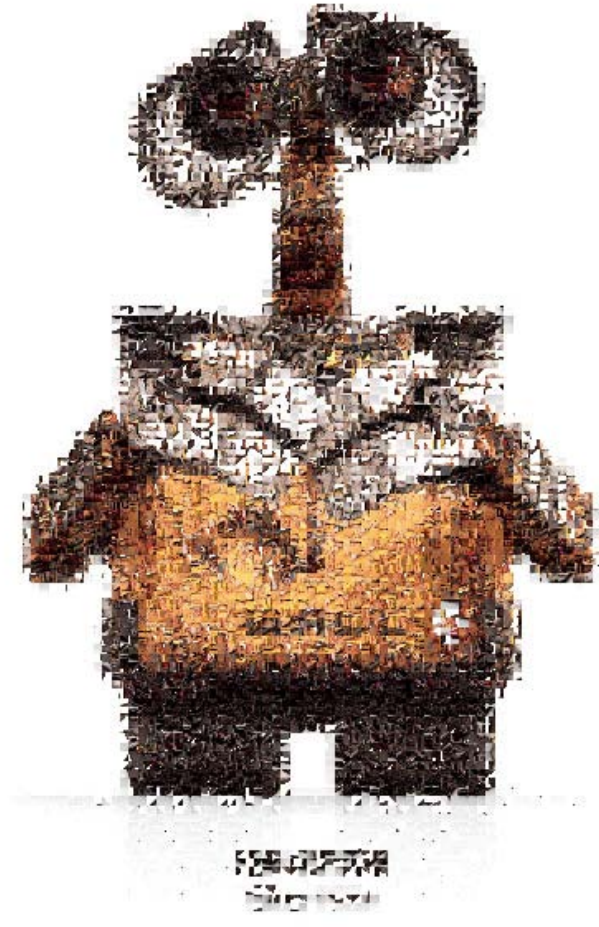


Mosaizer Pro Tutorial

The Mosaizer: recreate the picture



Here you learn how to make a mosaized picture from pieces of its own bitmap.

We will also demonstrate how to create a mosaic picture using a different mosaized library of pictures.

The Mosaizer: how to create a mosaized mosaic

About the Mosaizer

The Mosaizer is a tool that recreates a picture from pieces of itself. The Mosaizer cuts a picture into a number of sub-pictures, and uses these to rebuild that same picture again. The 'chunky' effect that will result is caused by a slightly offset of color match, where not the correct sub-picture is put back on its original position, but one that also fits pretty well.

Requirements

The Mosaizer requires only one source picture. In case a different picture is used for Mosaizing and for picture recreation, quite some color mismatch may occur. We selected two similar pictures of Wall-E that are almost the same in color palette.

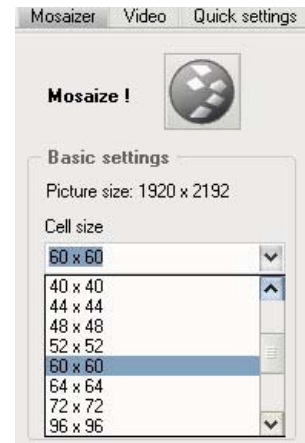
The steps for successful Mosaizing

Step 1: select the mosaizer picture and the cell size

The mosaizer picture can be loaded via 'File / Open mosaizer picture' or in case a new picture is used: 'File / New mosaizer picture'. The selected picture is seen in the tab 'Mosaizer' on the top-right.



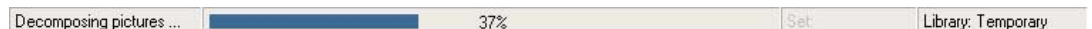
The next step is to choose the cell size of the Mosaizer. This is a preset value, ranging from 16 to 196 px width and height. We select a cell size of 60 x 60 px (via tab 'Mosaizer' on the left). When a size is selected, the number of horizontal and vertical cuts can be read (not visible in the example on the right): $32 \times 37 = 1184$ sub-



pictures.

Step 2: Mosaize the mosaizer picture

Simply press the 'Mosaize !' button. The mosaizer picture will now be cut in the given number of sub-pictures and stored in a temporary folder (called '/Temp'). The resulting palette is now shown (example on next page). Depending on the number of pictures, this may take a while.



Information: the palette is built from 3 horizontal bands of pictures. Each band is sorted from left to right over the color spectrum, and for color saturation within a band in vertical direction. The top band shows the lightest colors, the bottom band the darkest.
Technical note: horizontal axis is the Hue, vertical axis the Saturation and the band represents a range of Lightness values (HSL color system).



The color spectrum of Wall-E source picture (only the top band is shown here)

Step 3: select the source picture

After successful mosaizing, a temporary picture library will become available, called '(Multi) Mosaized' (example on the right). This library stays active as long as the Mosaizer Pro session lasts.

From here the creation of the photo

mosaic follows the normal path of any other photo mosaic. Just the library is now different.

To recreate the mosaizer picture from this library, load the same picture as the mosaized one.

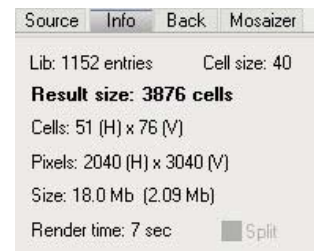
This is done via 'File | Open source picture' or if a new file is used 'File | New source picture'.



Step 4: select the proper cell size

This is the more creative part of the process. If we start with the smaller cell size as the mosaized cell (for instance 40 x 40) the resulting picture will have 51 x 76 cells. This number does not necessarily equal the original cut number (32 x 37).

***Information:** when the exact number of cells is selected as of the original mosaized version (both number and size), we may expect a full recreation of the source file as if nothing had happened. Since Mosaizer randomly selects the best fit from a certain 'top X' matches, the result may still be exiting. When the option 'Force Mosaizer's cell size' is checked and the cell size is the same as the mosaized one, a full recreation can be expected.*



Press the 'Create' button and look at the resulting picture (next page). We also use a different source file (but with the same Wall-E content), and the result is equally impressive.



Left: the original source file as the mosaizer picture



Right: a different picture but with the same subject content

We can now vary the cell size and the resolution and see how it will affect the level of detail (we'll continue with the right source picture). Tip: step back a few meters and look again...

Control	Size and shape	Circulars
Cell size	60 x 60	▼
Print size	A2 (420 x 594 mm)	▼
Resolution	125 dpi	▼
Grid shape	Square	▼



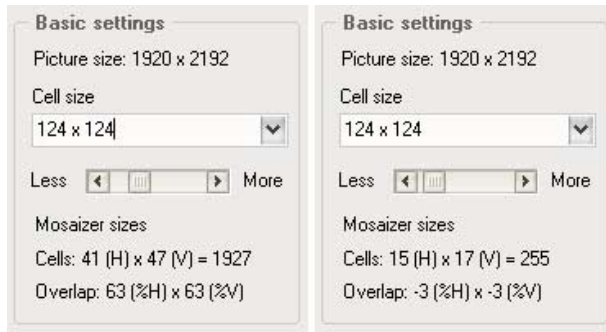
Control	Size and shape	Circulars
Cell size	60 x 60	▼
Print size	A2 (420 x 594 mm)	▼
Resolution	275 dpi	▼
Grid shape	Square	▼



Optional step 1a: create overlapping sub-cells

The number of cells is calculated by the program when the cell size is selected. This number is calculated to have a minimum overlap between adjacent cells to avoid double parts in the temporary sub-picture library.

You can change this by moving the slider (see example below):



When the slider is moved, overlapping sub-pictures will be generated. A positive overlap indicates that pieces of the sub-pictures are re-used (left), a negative overlap indicates that gaps will exist between adjacent sub-pictures after mosaizing (right).

TIP 1: vary the cell shape from square to rectangular and see what effect it will give on the full picture (left)

TIP 2: since the temporary library is just another library, try using the circulars and see how it creates a completely new effect (middle)

TIP 3: use the filters and masks and the effect of e.g. the *m_circle* mask on the result (right)

