ImageToolX

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ImageToolX™ (ITX) is a supplementary tool to PSX. It has three main functions. It will:

1. take one large image of the area you want to cover and chop, convert, and name the resulting images for use with PSX and X-Plane!
2. combine small images (such as those downloaded from the web via specialized download tools) into larger, properly-named images more appropriate for use in X-Plane.
3. convert images between various supported and unsupported X-Plane formats.

It does all the work for you! All you have to do is acquire the image(s) and find out the appropriate latitude and longitude coordinates. That's it. You're done. New photo-realistic scenery is just seconds away!

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Important

ImageToolX DOES NOT get the images for you!
You have to get the images! ITX only manipulates the images you already have for use with PSX.

Enter coordinates as decimal degrees! (the coordinates are optional, not required)
No letters, no degree symbol, just a positive number for North and East and a negative number for South and West.

Release Notes

- **ALL USERS:**
    - ITX may take a long time to finish depending on how many images you are processing.

- **Windows:**
    - No special notes now.

- **Linux:**
    - No special notes now.

- **Mac OS X:**
    - ITX is not currently available for PowerPC Macs.
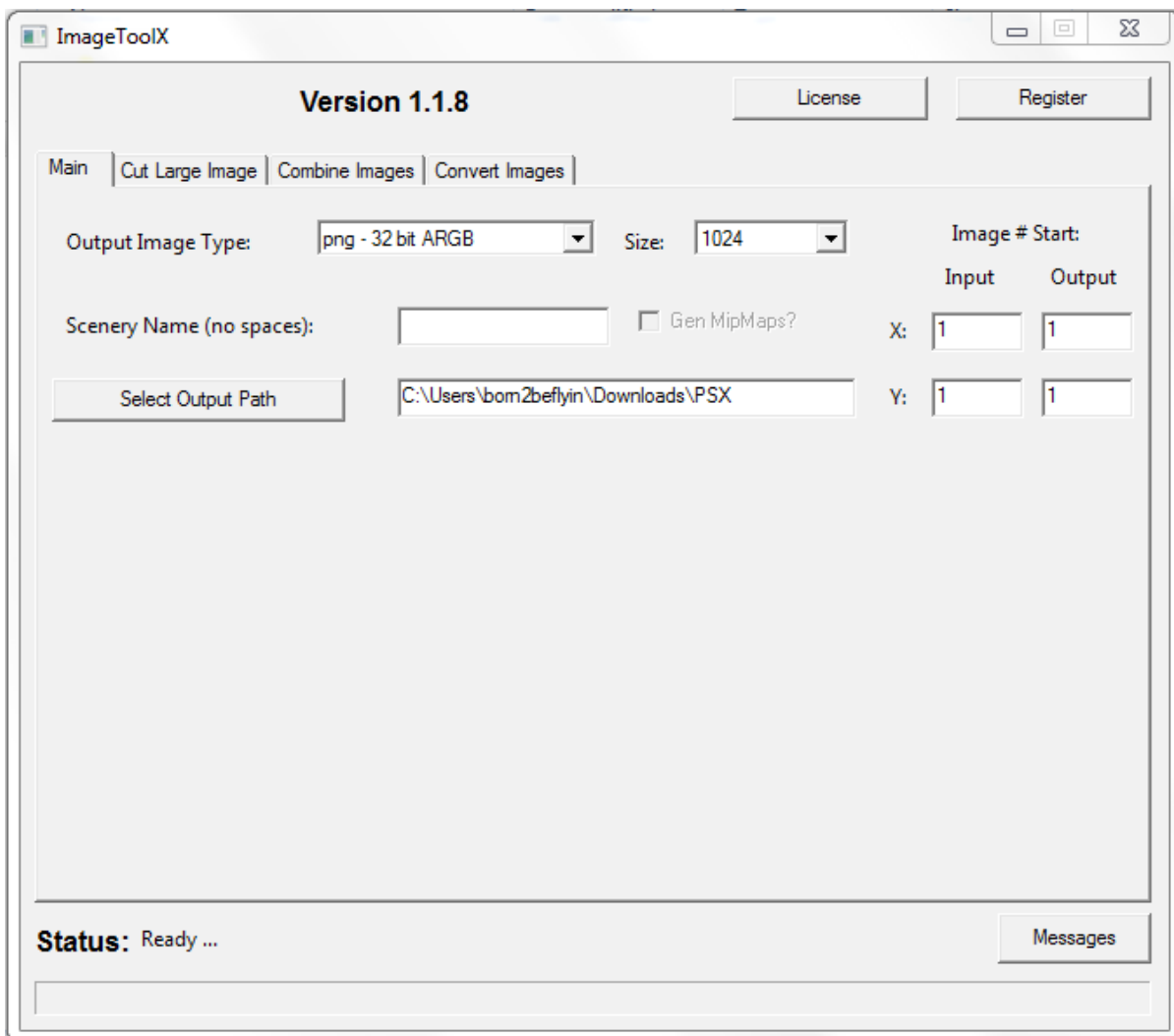
Preliminary Information

File Support

Input
PNG, DDS, JPG, BMP, PSD, GIF, TGA

Output
PNG, DDS, JPG, BMP

ITX User Interface

Output Image Type
This will be the image format of the ITX-generated images. If you're unsure about what to use, use 'png - 24bit RGB' for X-Plane 8 or 'dds - DXT1' for X-Plane 9.

Output Image Size

This will be the size (width and height) of the ITX-generated images in pixels. X-Plane 8 supports a maximum size of 1024px while X-Plane 9 can support up to 2048px.

Generate MipMaps?

Check this box if you wish to generate the mipmaps when generating DDS textures (recommended).

Scenery Name

This is the name you want for your scenery. You must use this name exactly as you enter it here when you run PhotoSceneryX.
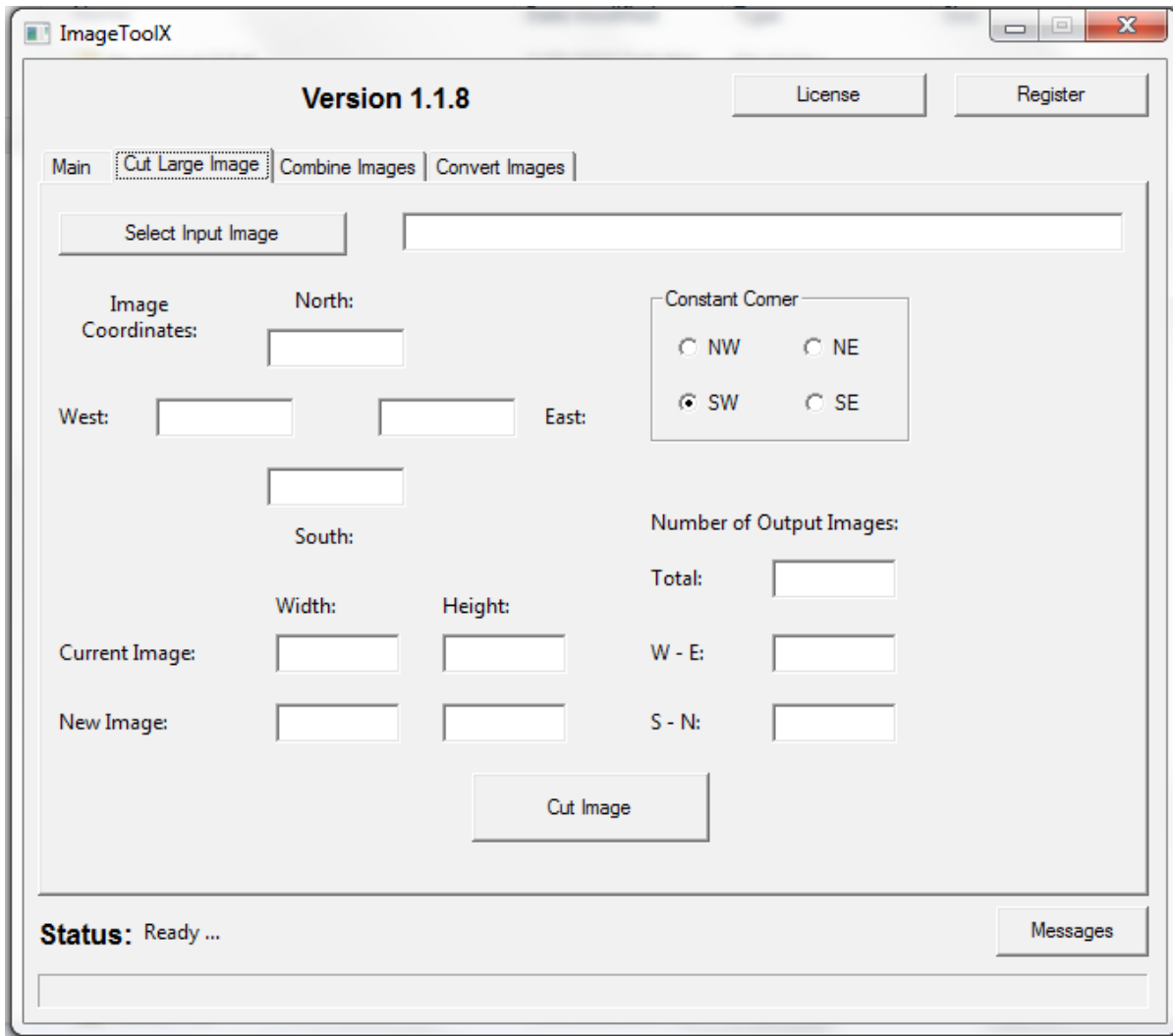
Image # Start

Use this to set the number at which the input and output image numbers start.

Select Output Path

Allows you to select where the output images are placed.

Cut Large Image

Use this to cut a single large image into smaller images ready for use with PhotoSceneryX.

Select Input Image
Use this to select the large image to be cut.

Image Coordinates (optional)
Input the coordinates of the edges of your large image here. This allows ITX to tell you the coordinates of the resulting southwestern image when ITX finishes processing. Entering coordinates here is not required, but ITX will tell you the wrong the coordinates of the southwestern image if you don't.

Constant Corner
If either the width or height of your large image is not equal to some power of two, then some of your large image must be cropped off to create a square image grid for use in X-Plane. Use this to select the corner you don't want to get cropped.

The rest of the fields are just for information purposes.

Combine Images

Use this to combine small image tiles downloaded from the internet via some download software.
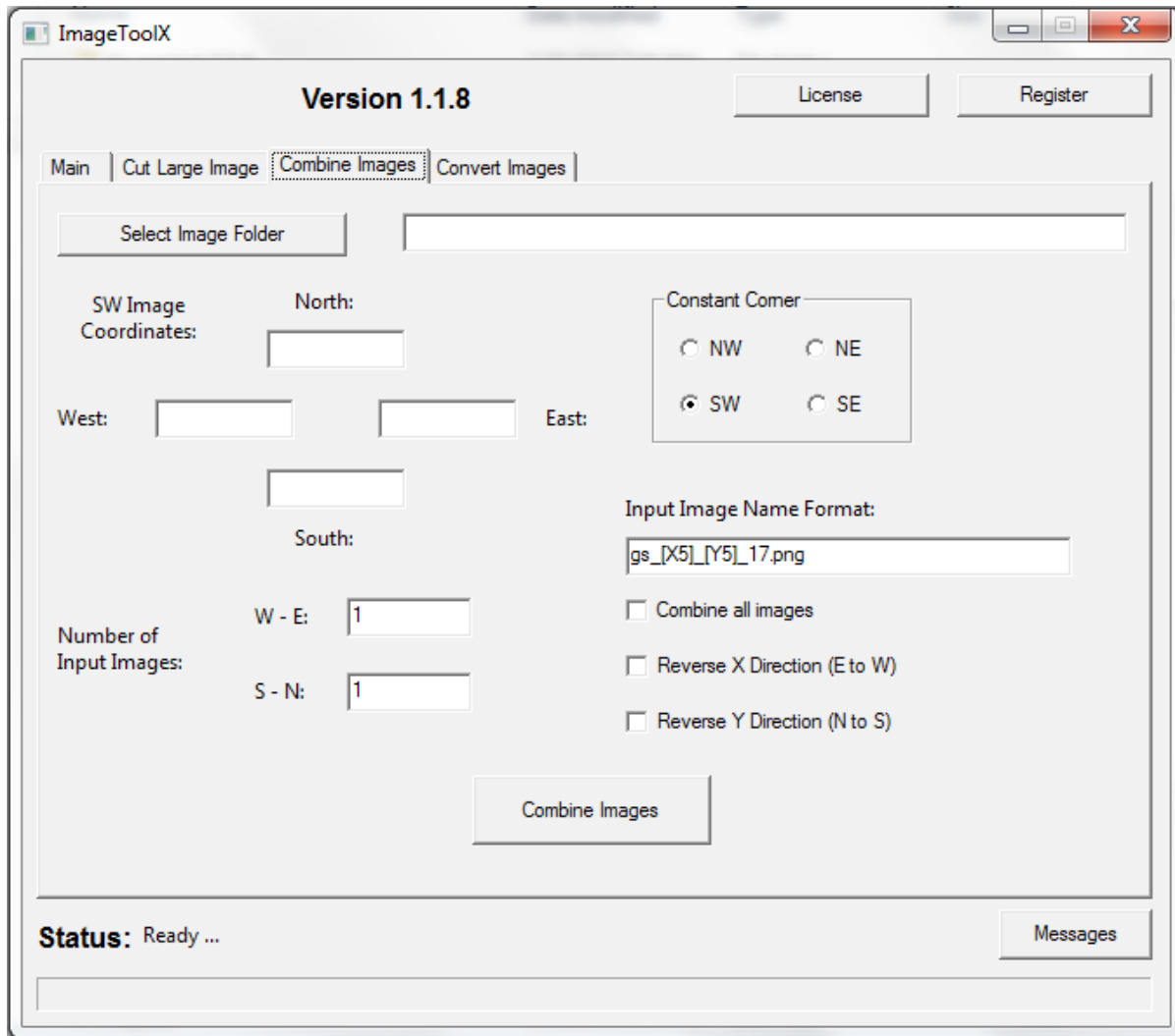
Select Image Folder
Select the folder where the images to be combined are located.

SW Image Coordinates (optional)
Input the coordinates of the southwestern SMALL IMAGE TILE here. This allows ITX to tell you the coordinates of the resulting southwestern image when ITX finishes processing. Entering coordinates here is not required, but ITX will tell you the wrong the coordinates of the southwestern image if you don't.

Constant Corner
If the number of small tiles you have doesn't fit perfectly into the output size you selected, some of the small image tiles will not be used. This selection box lets you choose which corner MUST be included in the resulting images if ITX can't include all the small image tiles. This is similar to the Constant Corner for cutting a large image (see above).

Combine All Images

Combines all the images into one large image file. You must have a valid registration to use this feature.

Reverse X Direction (E to W)
Reverse the counting in the X direction from W to E to E to W. This allows you to combine images where the easternmost image is numbered 1, the next to the west is 2, and so forth.

Reverse Y Direction (N to S)
Reverse the counting in the Y direction from S to N to N to S. This allows you to combine images where the northernmost image is numbered 1, the next to the south is 2, and so forth.

Number of Input Images
Enter the TOTAL number of images you have from west to east and from south to north in these fields. For example, if you downloaded a bunch of satellite image tiles of an area from the internet and it happened to take 44 images west to east by 36 images south to north then you would enter 44 in the "W – E" field and 36 in the "S – N" field. ITX will figure out how to group these images based on your selection of "Output Image Size."

Input Image Name Format
This is the most important field of the Combine process. In this field you tell ITX the naming scheme of your input images. For instance, the program Universal Maps Downloader downloads images to your computer from services by Google, Yahoo, and Microsoft. From this program, one of the downloaded image names could be "gs_52460_39601_17.jpg". Inspecting this name, we can see that the x-coordinate of the image is most likely "52460" while the y-coordinate is most likely "39601". The rest is simply informational and doesn't change from image to image in one download.

Now, we want to enter the "Input Image Name Format" into ITX such that it uses the correct names and knows how to loop through the image files when combining the images. There are two important parts of the "Input Image Name Format" field, the x-coordinate placeholder and the y-coordinate placeholder. The placeholders are formatted as follows:

x-coordinate placeholder => [X#] , where the "#" symbol is replaced by some integer, i.e. 1, 2, 3, ...
y-coordinate placeholder => [Y#] , where the "#" symbol is replaced by some integer, i.e. 1, 2, 3, ...

The "#" is the number of digits the coordinate value must have. For example, if the coordinates of your images must always be represented by 5 digits (00001, 00002, 00052, 00423, 01687, etc.), even if the value of the coordinate doesn't require 5 digits (any number less than 10000 does not require 5 digits) then the coordinate placeholders would be [X5] and [Y5] and the coordinates x=29 and y=460 yield an image name of "gs_00029_00460_17.jpg" using the example image name given above. Using the example image name above and assuming we do require 5 digits in each coordinate, the "Input Image Name Format" is then "gs_[X5]_[Y5]_17.jpg". If the image name doesn't require a certain number of digits (i.e. the value of the coordinate does not need to be padded with zeros), then placeholder values of [X1] , [Y1] or [X0] , [Y0] or just [X] , [Y] are OK.

Convert Images

Use this to convert images to a different format.
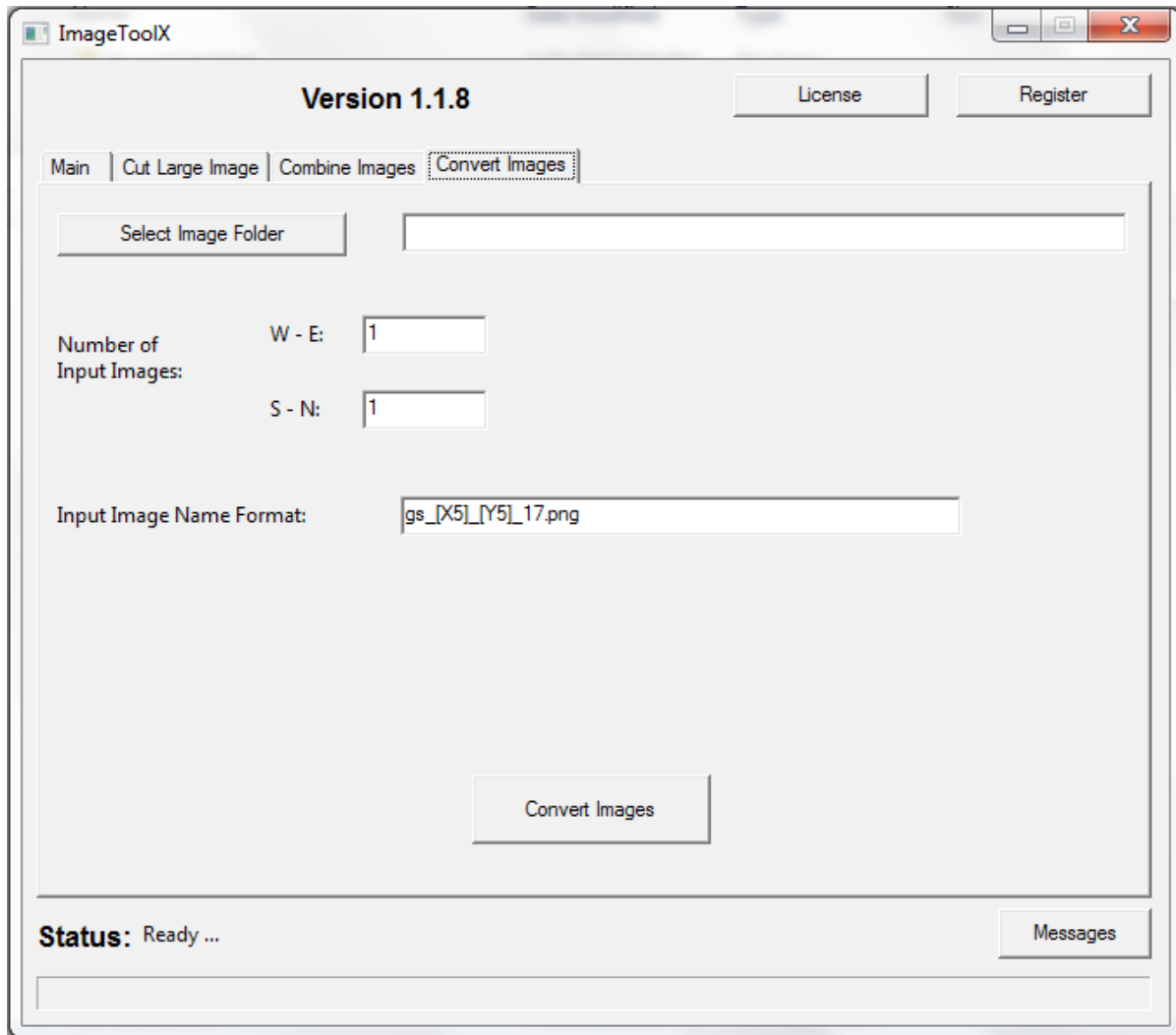
Select Image Folder
Select the folder where the images to be converted are located.

Number of Input Images
Enter the TOTAL number of images you have from west to east and from south to north in these fields. For example, if you downloaded a bunch of satellite image tiles of an area from the internet and it happened to take 44 images west to east by 36 images south to north then you would enter 44 in the "W – E" field and 36 in the "S – N" field. ITX does not resize the images. It outputs the converted images at the same size of the input images.

Input Image Name Format
This is the most important field of the Convert process. In this field you tell ITX the naming scheme of your input images. For instance, the program Universal Maps Downloader downloads images to your computer from services by Google, Yahoo, and Microsoft. From this program, one of the downloaded image names could be "gs_52460_39601_17.jpg". Inspecting this name, we can see that the x-coordinate of the image is most likely "52460" while the y-coordinate is most likely "39601". The rest

is simply informational and doesn't change from image to image in one download.

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The "#" is the number of digits the coordinate value must have. For example, if the coordinates of your images must always be represented by 5 digits (00001, 00002, 00052, 00423, 01687, etc.), even if the value of the coordinate doesn't require 5 digits (any number less than 10000 does not require 5 digits) then the coordinate placeholders would be [X5] and [Y5] and the coordinates x=29 and y=460 yield an image name of "gs_00029_00460_17.jpg" using the example image name given above. Using the example image name above and assuming we do require 5 digits in each coordinate, the "Input Image Name Format" is then "gs_[X5]_[Y5]_17.jpg". If the image name doesn't require a certain number of digits (i.e. the value of the coordinate does not need to be padded with zeros), then placeholder values of [X1] , [Y1] or [X0] , [Y0] or just [X] , [Y] are OK.