

# IceMan - Compositing

The basic image merging operations defined by Porter and Duff in their 1984 paper, with a couple of additions. All these operations are methods of *Image* and return a new *Image* instance.

Each of the following operations is illustrated with these foreground and background images:



## ice.Image Over(*fg*)

The image being operated on is the background image.

### Parameters

*fg*

Foreground image (ice.Image).

### Example

?

#### Unknown Attachment

```
fg = ice.Load('teapot.tif')
bg = ice.Load('tinbox.tif')
result = bg.Over(fg)
```

## ice.Image Cover(*fg*)

Correlated Over operation. Similar to Over, but works better for correlated subpixel coverage.

### Parameters

*fg*

Foreground image (ice.Image).

### Example

?

#### Unknown Attachment

```
fg = ice.Load('teapot.tif')
bg = ice.Load('tinbox.tif')
result = bg.Cover(fg)
```

## ice.Image MergeAtop(*fg*)

Merge "atop".

### Parameters

*fg*

Foreground image (ice.Image).

### Example

#### ?

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```
fg = ice.Load('teapot.tif')
bg = ice.Load('tinbox.tif')
result = bg.MergeAtop(fg)
```

## ice.Image In(*fg*)

Merge "in".

### Parameters

*fg*

Foreground image (ice.Image).

### Example

#### ?

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```
fg = ice.Load('teapot.tif')
bg = ice.Load('tinbox.tif')
result = bg.MergeXOR(fg)
```

## ice.Image MergeXOR(*fg*)

Merge XOR operation.

### Parameters

*fg*

Foreground image (ice.Image).

### Example

## ?

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```
fg = ice.Load('teapot.tif')
bg = ice.Load('tinbox.tif')
result = bg.MergeXOR(fg)
```

## ice.Image Out(*fg*)

Merge out operation.

### Parameters

*fg*

Foreground image (ice.Image).

### Example

## ?

### Unknown Attachment

```
fg = ice.Load('teapot.tif')
bg = ice.Load('tinbox.tif')
result = bg.Out(fg)
```

## ice.Image TransmissionFilter(*fg*)

In this operation, the foreground acts as a color filter for the background.

### Parameter

*fg*

Foreground image (ice.Image).

### Example

## ?

### Unknown Attachment

```
fg = ice.Load('teapot.tif')
bg = ice.Load('tinbox.tif')
result = bg.TransmissionFilter(fg)
```

## ice.Image AlphaDivide()

Divide image by alpha channel.

## ice.Image AlphaMultiply()

Multiply image by alpha channel.