

IconMosaic is a *BackSpace* module that searches application directories, and application binaries, for icons to display randomly on the screen. It loads *.tiff and *.eps files from the NeXT's file system and from segments in *Mach* binaries. *IconMosaic* provides a slider on the *BackSpace Settings* panel to control the density of the images. (There are other defaults you can adjust listed below.) Since what's displayed can be tuned to what's installed on the machine, the display can differ on each NeXT.

IconMosaic spawns a separate *thread* to search for images so that it can function immediately as a screen saver using whatever images it has found. (You'll notice a lot of repetition as it starts up.) It won't start looking for images until asked to display itself and will suspend the search using a *condition* and *mutex* whenever it is no longer actively displaying, resuming the search when called on. When *IconMosaic* starts displaying, you'll hear disk activity as it seeks out images but eventually it will quiet down as the image search ends and it just reuses what has been found. (*IconMosaic* loads the images into memory so that it doesn't constantly exercise the disk when acting as a screen saver.)

IconMosaic was built and tested with the *NeXTSTEP 3.0* version of *BackSpace* and may be incompatible with earlier versions.

Installation

To install *IconMosaic*, copy the IconMosaicView.BackModule *bundle* (directory) into the ~/Library/BackSpaceViews or /LocalLibrary/BackSpaceViews directory. The following will install *IconMosaic* in your ~/Library/BackSpaceViews directory:

```
make install
```

Or you can specify the installation directory:

```
make install INSTALLDIR=/LocalLibrary/BackSpaceViews
```

Or use 'cp -r' or tar to move the file to the desired location.

Defaults

IconMosaic has several defaults that you can set either by doing a `dwrite` (under the owner *BackSpace*) or, by editing the `Defaults.strings` file in the `IconMosaicView.BackModule` bundle (at any time) or in the source directory before (re)installing :

```
IconMosaicImagePaths ( = "/NextApps:/usr/lib/NextStep" )
```

This default is a list of directories where `IconMosaic` should look for images. For a larger, more individual selection of images, try:

```
"/NextApps:/LocalApps:/usr/lib/NextStep"
```

For a really huge selection of images, which of course will use even more memory (but hey, your machine's idle anyway), try:

```
"/NextApps:/LocalApps:/NextAdmin:/LocalAdmin:/NextDeveloper/Apps:  
/LocalDeveloper/Apps:/NextDeveloper/Demos:/LocalDeveloper/Demos:  
/NextDeveloper/Games:/LocalDeveloper/Games:/usr/filesystems:
```

```
/NextLibrary/References/OxfordQuotations/tiff:/usr/lib/NextStep"
```

Or maybe some subset of those! For a slightly different visual effect you might try:

```
dwrite BackSpace IconMosaicImagePaths "/LocalLibrary/NewsGrazer/People"
```

if you have a *NewsGrazer* (or *Mail*) images directory. Although the Webster-Dictionary/pictures directory has images, it won't work very well with *IconMosaic* as the *.tiff files are incompatible.

```
IconMosaicDensity ( = "0.10" )
```

This controls the number of images on the screen and should be a value between 0 and 1. It is simplest to set this default using the slider in the inspector inside *BackSpace*.

```
IconMosaicMaximumBytes ( = "8192" )  
IconMosaicMaximumSize ( = "w:72 h:72" )
```

These defaults control how large an image *IconMosaic* will use. The first default is a rough setting to limit how large a file (or segment) *IconMosaic* will even open and the second default is the size below which it will actually keep images that it's found. Since some images contain both color and monochrome versions, the first default should be slightly lax compared to the second.

```
IconMosaicImageSuffixList ( = ".tiff:.eps" )
```

These are the types of files that *IconMosaic* will look for in the `IconMosaicImagePaths` directories.

```
IconMosaicSegmentList ( = "__ICON:__TIFF:__EPS" )  
IconMosaicIgnoreSectionList ( = "__header:__request:__services" )
```

These defaults control which *Mach* segments *IconMosaic* will search, and having found such a segment, which sections it will ignore in the process of loading images.

Christopher_Lane@Med.Stanford.EDU