

**Skat666's 7 Tutorials for Windows 7 Series**  
**- Version 5.0 -**

## Building Windows 7 Basics Part 1 - Quick Guide for the Preparation

First you need to create a folder called -> W7 <- or any name you like, I will use W7 for the tutorial, create the folder in:

CODE: [SELECT ALL](#)

---

```
C:\
```

or any spare drive you have so it will be:

CODE: [SELECT ALL](#)

---

```
C:\W7 or F:\W7
```

and inside this folder create 3 subfolders that will be named;

CODE: [SELECT ALL](#)

---

```
DVD, ISO, MOUNT
```



Now insert your Windows 7 DVD and copy all the files inside to the folder named DVD, the files inside the original Windows 7 DVD should look like this:

 boot			Folder
 efi			Folder
 sources			Folder
 support			Folder
 upgrade			Folder
 autorun.inf	43	43	Setup Information
 bootmgr	383.562	383.562	File
 setup.exe	111.880	111.880	File exe

---

## Building Windows 7 Basics Part 2 A - The Installation

**Note:** It is highly recommended to integrate all updates before starting to mod Windows 7, if you want to integrate them now you can go to *The Integration part of the Tutorials* and come back here when finished.

## Editing The Installation / Mounting the Boot.wim Image of Windows 7

Once you have installed the *The Windows® Automated Installation Kit (AIK) for Windows® 7* go to:

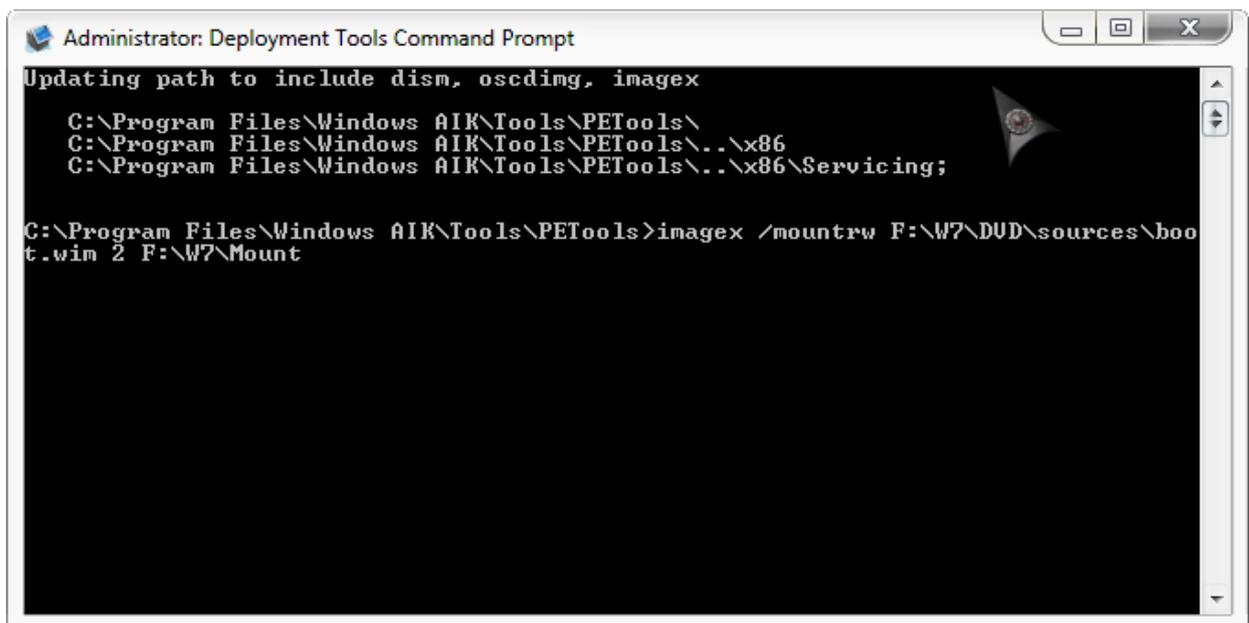
### SELECT ALL

Start/All Programs/Microsoft Windows AIK/Deployment Tools Command Prompt

run it as Administrator and Copy or Type the following command:

### CODE: SELECT ALL

```
imagex /mountrw F:\W7\DVD\sources\boot.wim 2 F:\W7\Mount
```



This will mount the boot image for editing, notice that "F" is the letter that refers to your drive, if you have placed W7 folder in another drive change "F" for the letter of your drive and "W7" if you have a different working folder, everything else remains the same.

## Editing The Installation / Taking Ownership

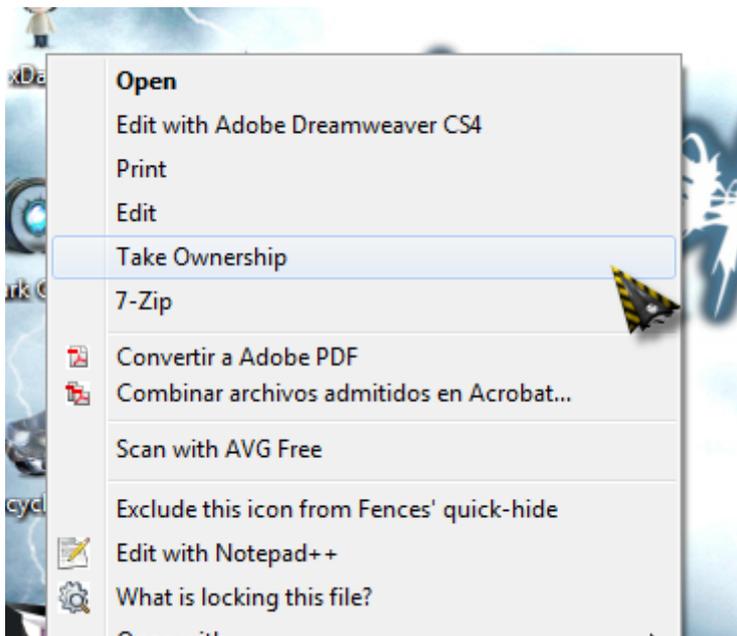
**Important:** You will have to *take ownership* of every file you are going to modify before modifying it. If you dont have ownership installed just go to the following link:



CODE: SELECT ALL

```
http://www.sk8tr.iblogger.org
```

download the file, and doble click on *take ownership.reg*, once installed you will see Take Ownership in your context menu when clicking on a file:



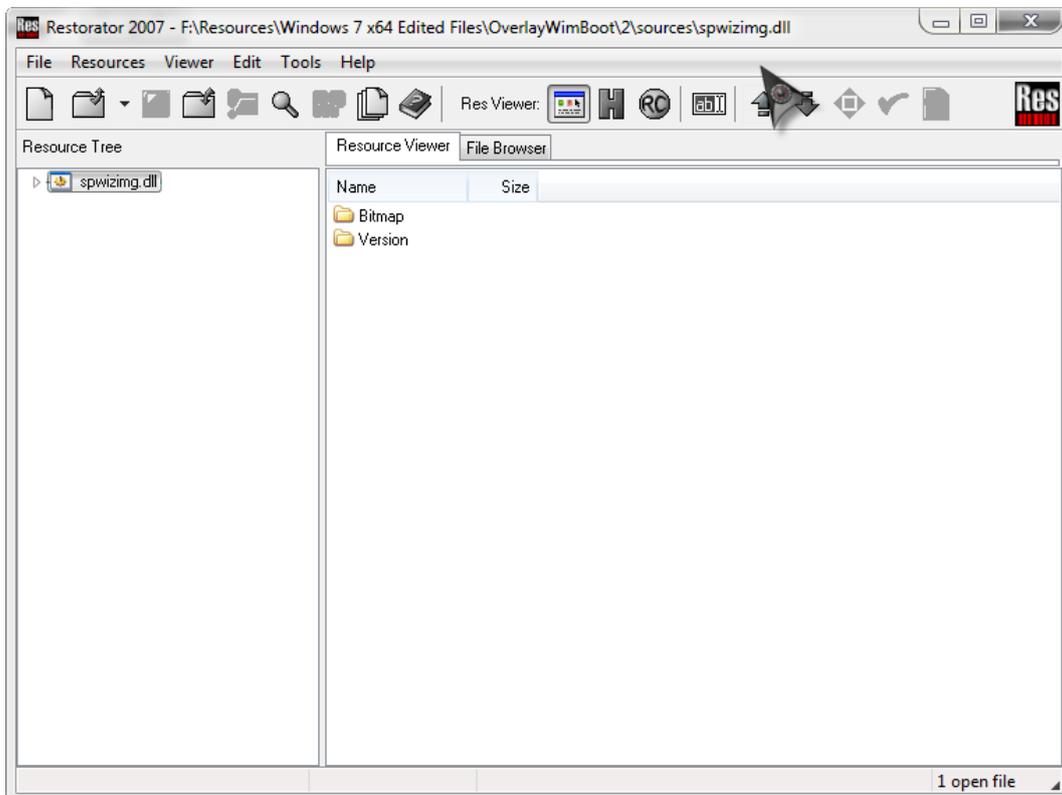
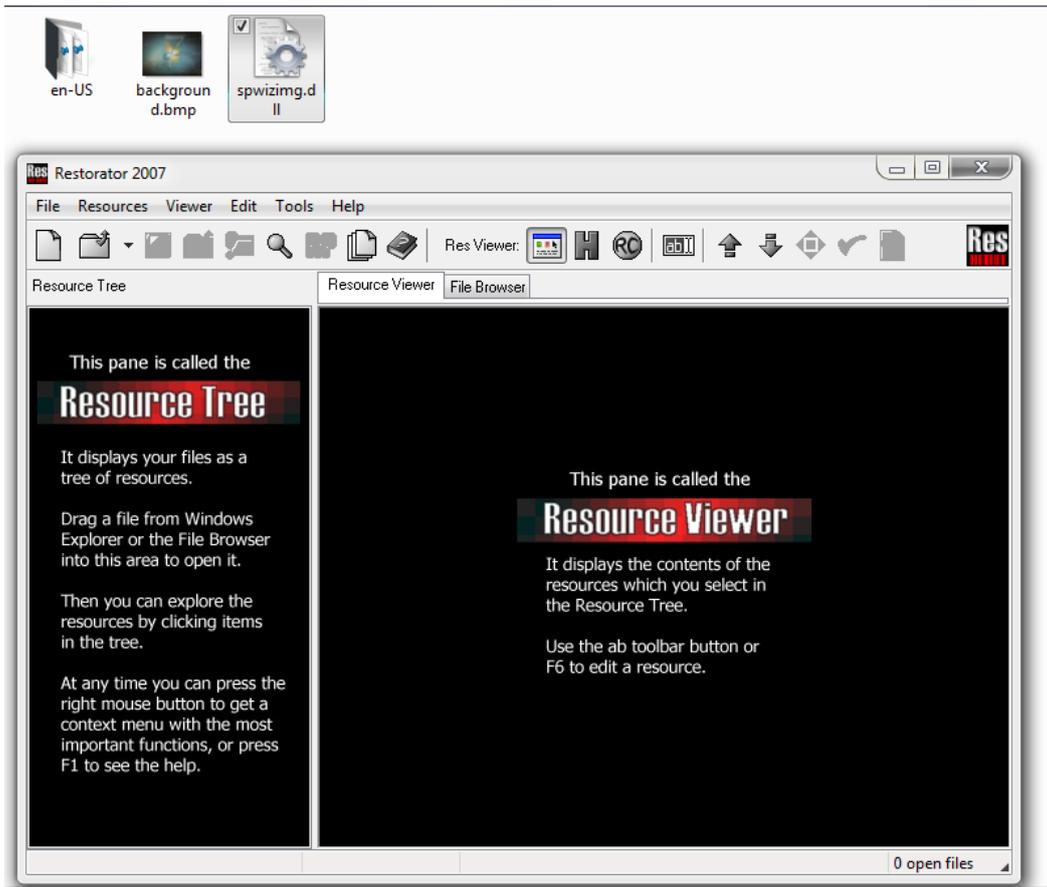
### Editing The Installation / Changing The Background Images from the Windows 7 Installation Program:

Now we are going to change the background images from the installation program of Windows 7, to change them go to the folowing paths and replace the images for the ones you made matching the same format *.BMP*, the same resolution *1024.x768* and the same *name*:

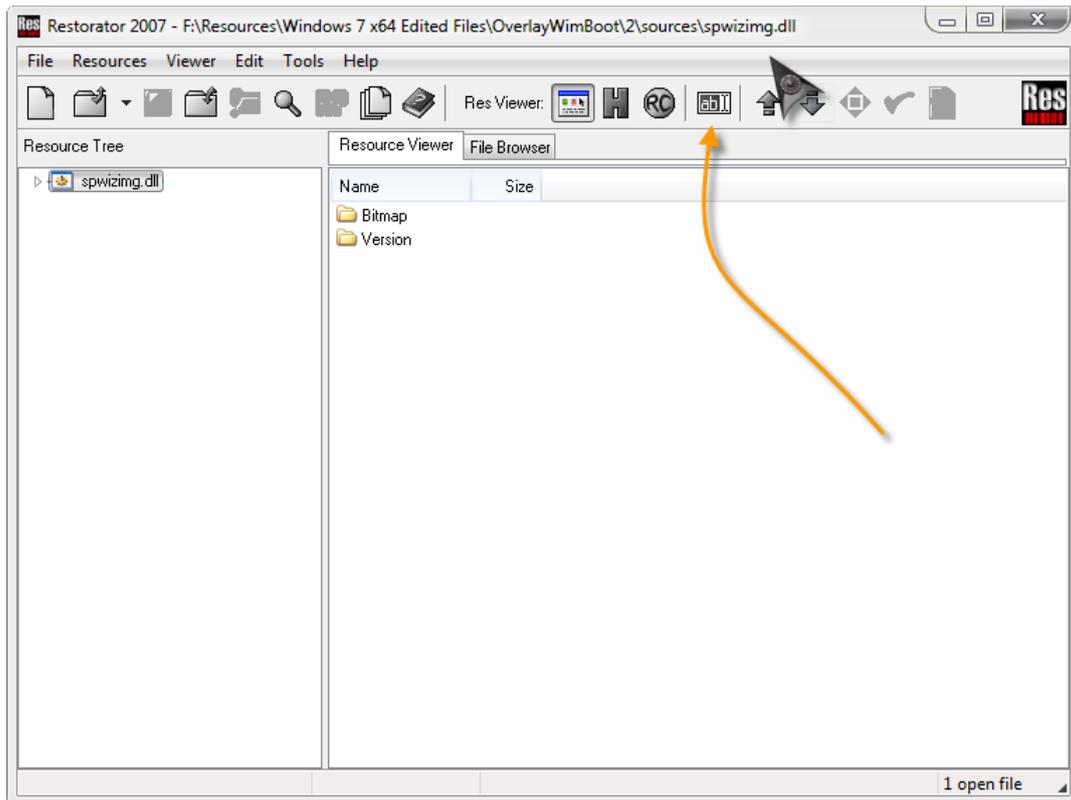
CODE: SELECT ALL

```
sources/background.bmp  
sources/spwizimg.dll (images number 517 and 518 inside the .dll file)
```

To edit *.dll* files like *spwizimg.dll* we will use *Restorator 2007*, once installed just drag and drop the file inside the program:



click in the *ab* tab:

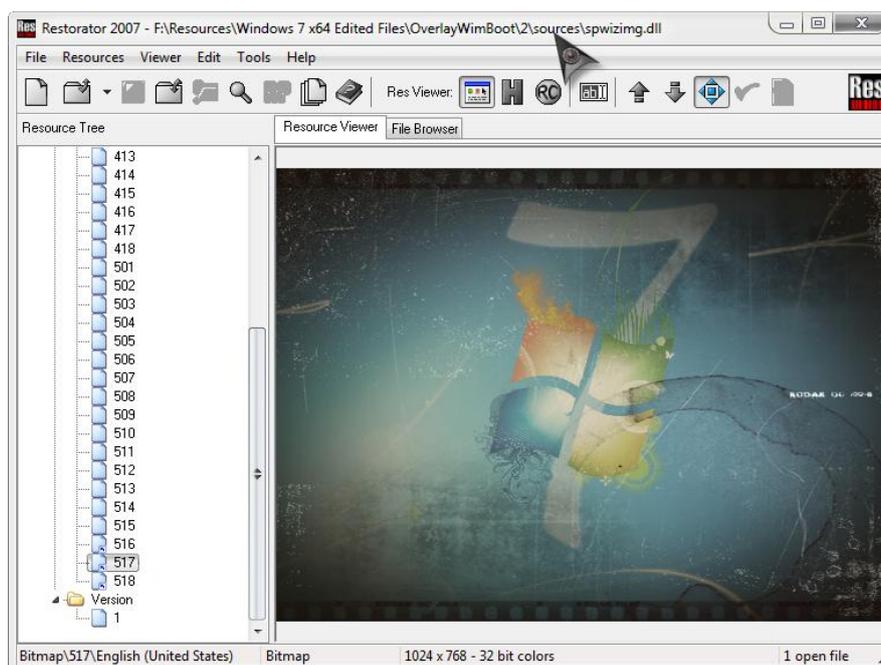


the images that we want to change are in the numbers:

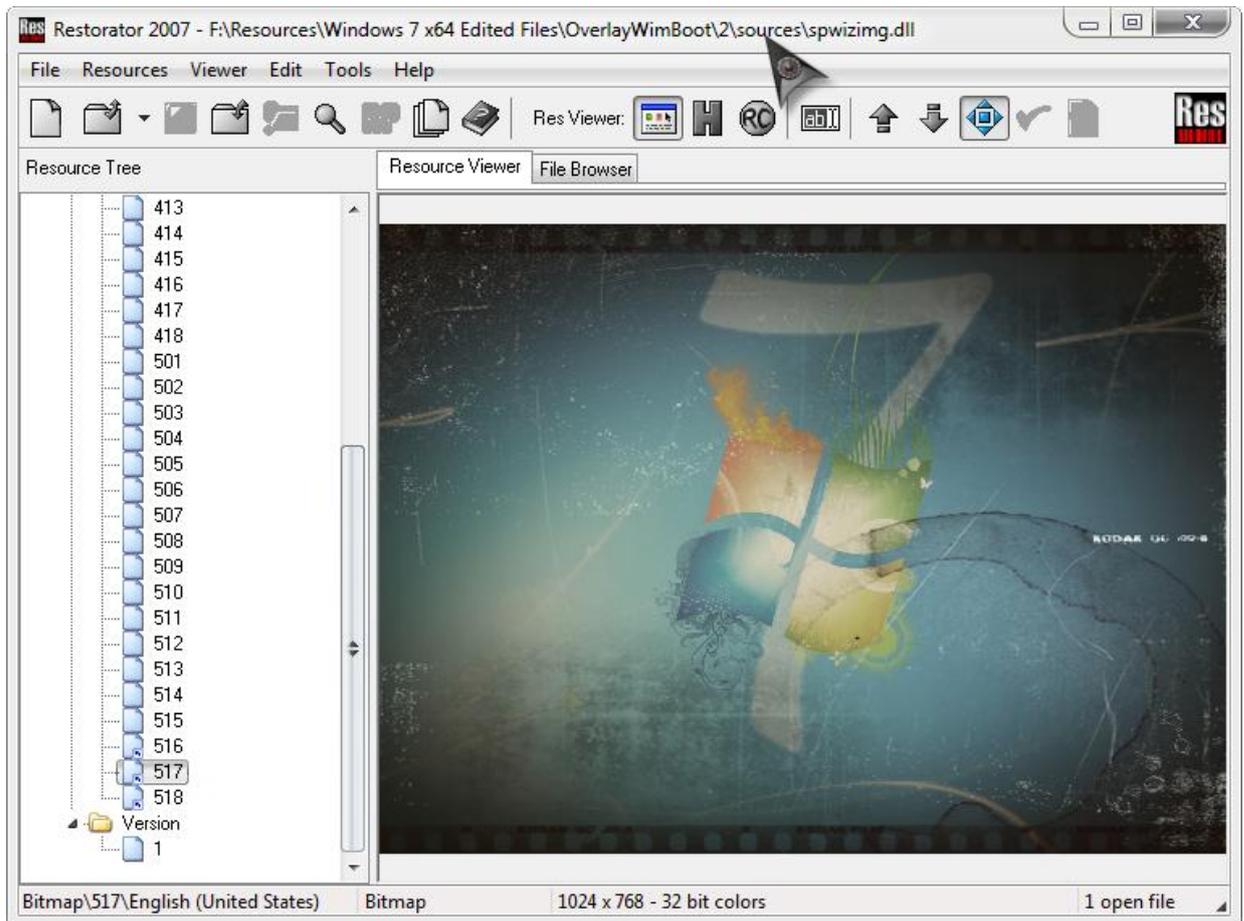
**CODE: SELECT ALL**

517 and 518

inside the *bitmap* folder, expand the bitmap folder located in the left side of the program and select any of those 2 numbers:



now to replace the image just drag and drop your image inside the number that you want to change:



if you want to change the Windows 7 Installation Logo you will have to replace the images inside the numbers:

**CODE: SELECT ALL**

409 and 411

and for the installation progress popup window image:

**CODE: SELECT ALL**

516

when you have finished just close the application and when asked to save changes click in yes, you can also save changes by clicking in *file* -> *save*.

You will find more Installation Background Images here:

CODE: SELECT ALL

---

```
system32/winpe.bmp  
system32/setup.bmp
```

and in the DVD folder: (No Mount)

CODE: SELECT ALL

---

```
background_cli.bmp
```

these are all the background installation images we will change in the boot.wim, there are a few more but we will change them in the next tutorial when we mount the install.wim.

### Editing The Installation / Edit The Text On The Install Splash Screen:

Go to:

CODE: SELECT ALL

---

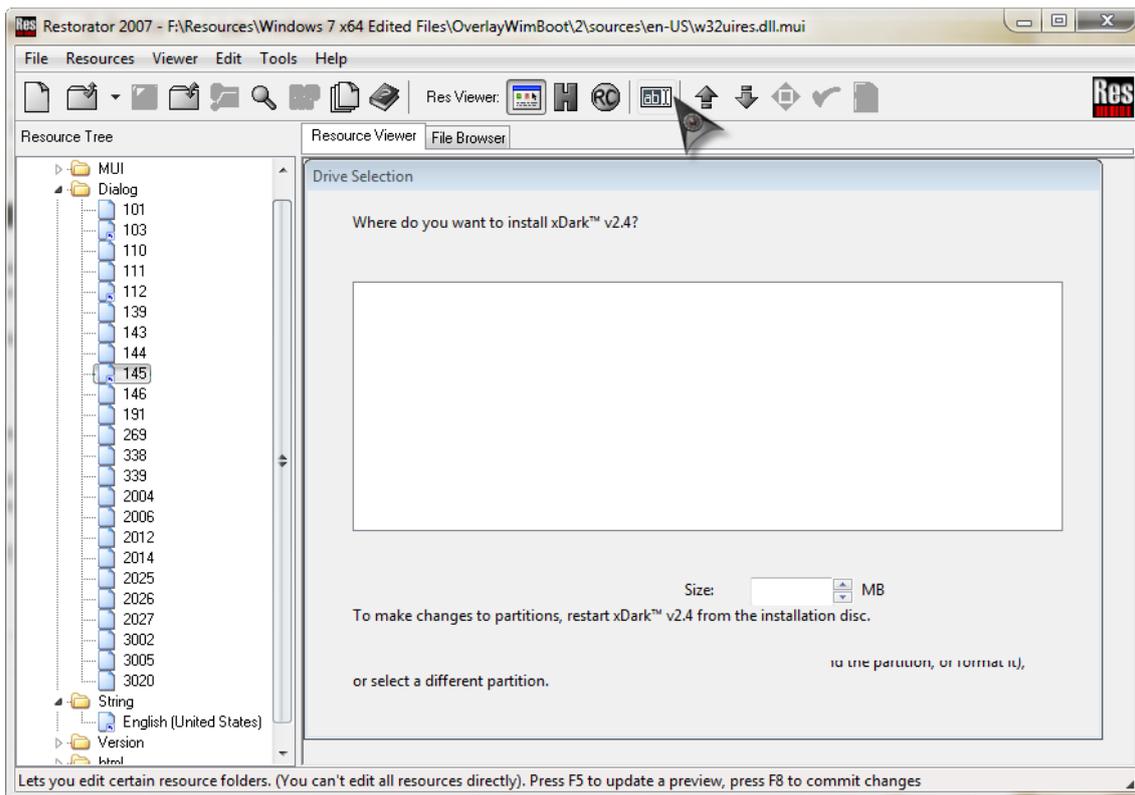
```
Sources/en-US/W32UIRes.dll.mui
```

open it with Restorator 2007. Here you will find the Windows 7 Installation Text, click in the *ab* tab like we did before and replace any text you like, for example:

CODE: SELECT ALL

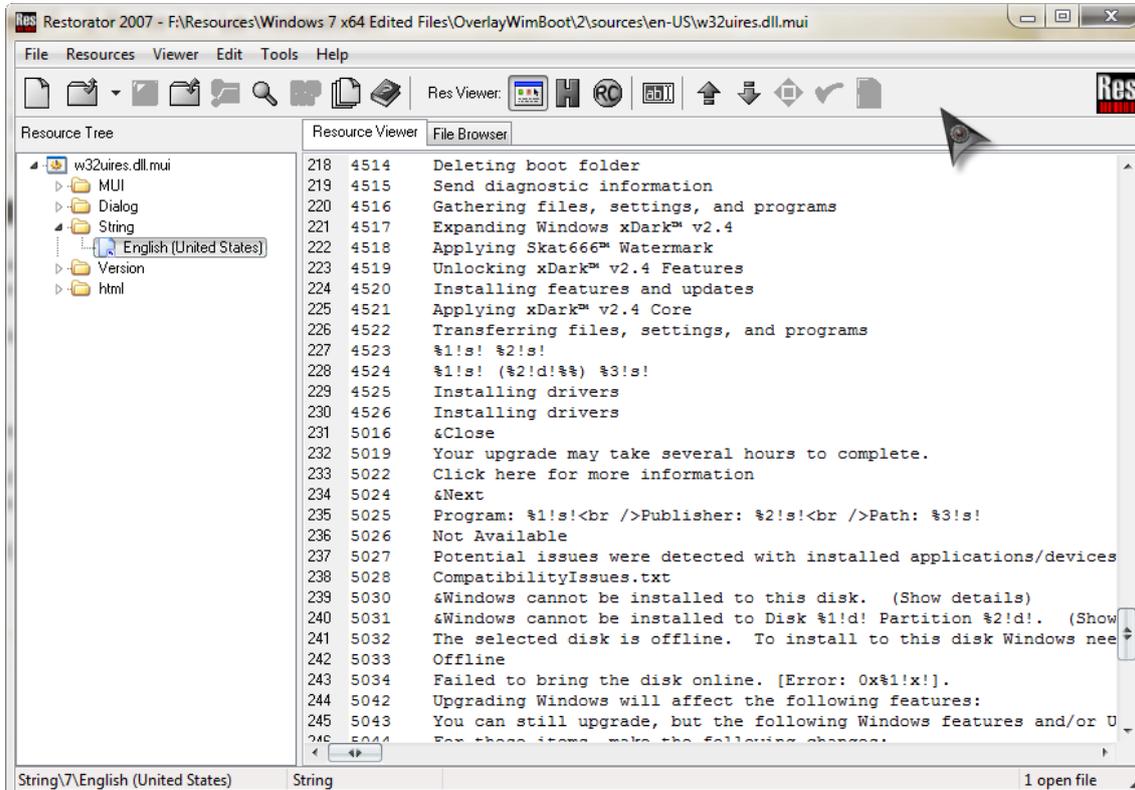
---

```
dialog 103, 112 and 145
```



**CODE: SELECT ALL**

string 4517 to 4521



save changes. If you want to keep changing more text in the Windows 7 Installation you will find more inside the folder:

CODE: [SELECT ALL](#)

```
Sources/en-US
```

for example:

CODE: [SELECT ALL](#)

```
setup.exe.mui
```

## Editing The Installation / Finishing and Unmounting the Boot.wim Image of Windows 7

**Note:** We will have to edit 2 system files exactly like the ones we just edited when we mount the install.wim in the next tutorial, save a copy of *spwizimg.dll* and *w32uires.dll.mui* to replace them in the next step so you don't have to modify them twice.

Unmount the Boot Image:

CODE: [SELECT ALL](#)

```
imagex /unmount /commit F:\W7\Mount
```

Remember that "F" is your drive letter and "W7" your main working folder..

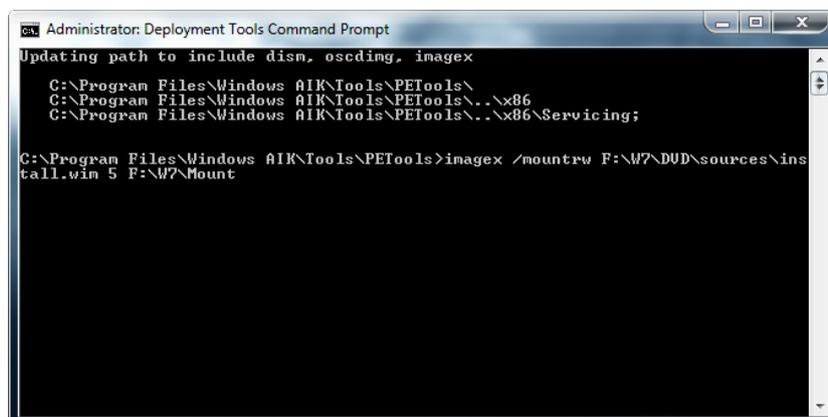
---

## Building Windows 7 Basics Part 2 B - The Installation

Mount your install.wim:

CODE: [SELECT ALL](#)

```
imagex /mountrw F:\W7\DVD\sources\install.wim 5 F:\W7\Mount
```



```
Administrator: Deployment Tools Command Prompt
Updating path to include dism, oscdimg, imagex
C:\Program Files\Windows AIK\Tools\PETools\
C:\Program Files\Windows AIK\Tools\PETools\..\x86
C:\Program Files\Windows AIK\Tools\PETools\..\x86\Serviceing;

C:\Program Files\Windows AIK\Tools\PETools>imagex /mountrw F:\W7\DVD\sources\ins
call.wim 5 F:\W7\Mount
```

Where "F" is your drive letter "W7" your main working folder and the number "5" is the ultimate edition, if you removed all other editions with vlite you will have to replace number 5 for number 1.

### Editing The Installation \ Changing the Text from The Installation Splash Screen in the Install.wim:

**Note:** You can use the *W32UIRes.dll.mui* file that we have already edited before in the boot.wim image to replace it for this one, if you prefer to edit it instead of copying it follow the same steps.

Replace the file in:

CODE: SELECT ALL

---

```
windows/system32/oobe/en-US/W32UIRes.dll.mui
```

### Editing The Installation / Changing The Background Images from the Windows 7 Installation Program on the Install.wim:

Now we are going to finish changing the background installation images in the Install.wim, replace images in:

CODE: SELECT ALL

---

```
windows/system32/spwizimg.dll (images 517 and 518)  
windows/system32/oobe/background.bmp
```

and if you are modifying a *64bits* OS you will find another one here:

CODE: SELECT ALL

---

```
windows/SysWOW64/oobe/background.bmp
```

### Editing The Installation \ Changing the Windows 7 Logon Screen:

Go to:

*32bits:*

CODE: SELECT ALL

---

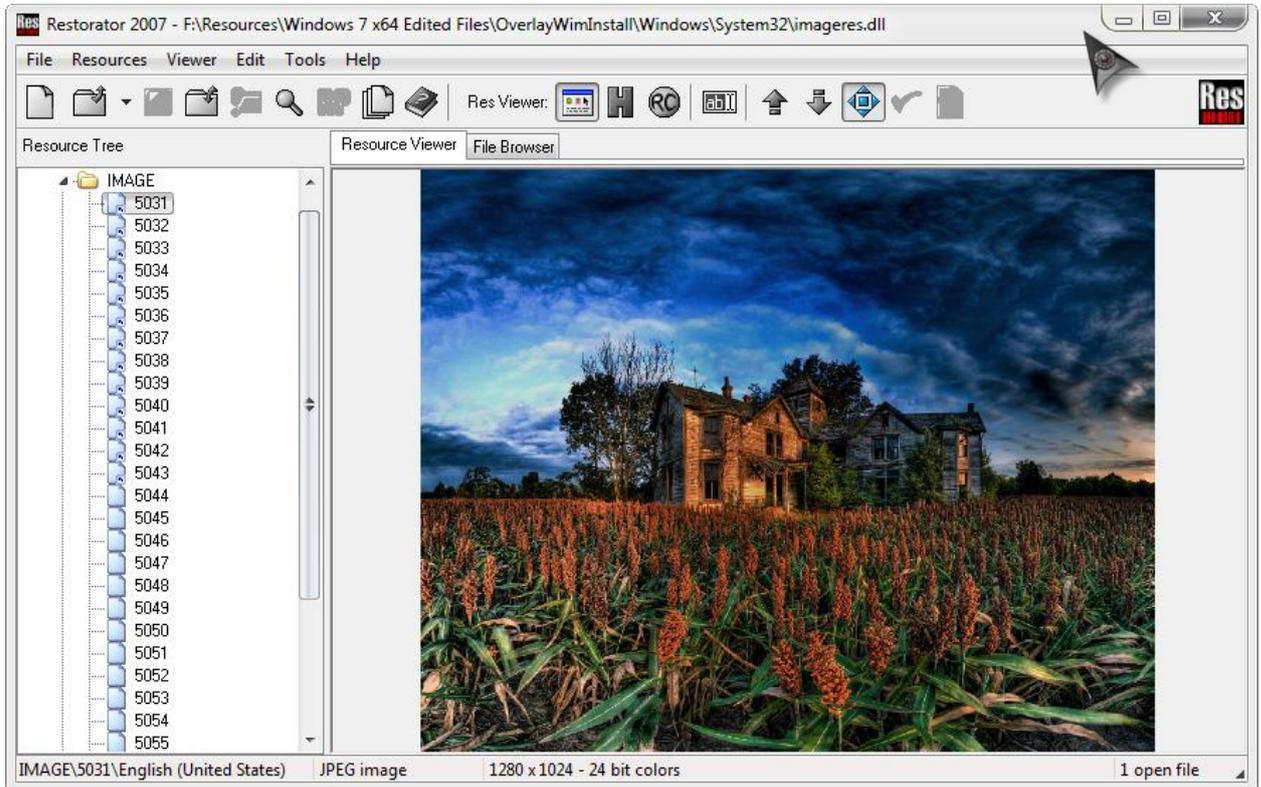
```
system32/imageres.dll
```

64bits:

CODE: SELECT ALL

```
system32/imageres.dll  
SysWOW64/imageres.dll
```

open it with Restorator 2007:



all images from 5031 - 5043 are the Windows 7 Logon Screens in different resolutions, replace them as shown *in part A* one by one for every resolution, remember to match *name, extension and resolution*. I will make a table for easier access:

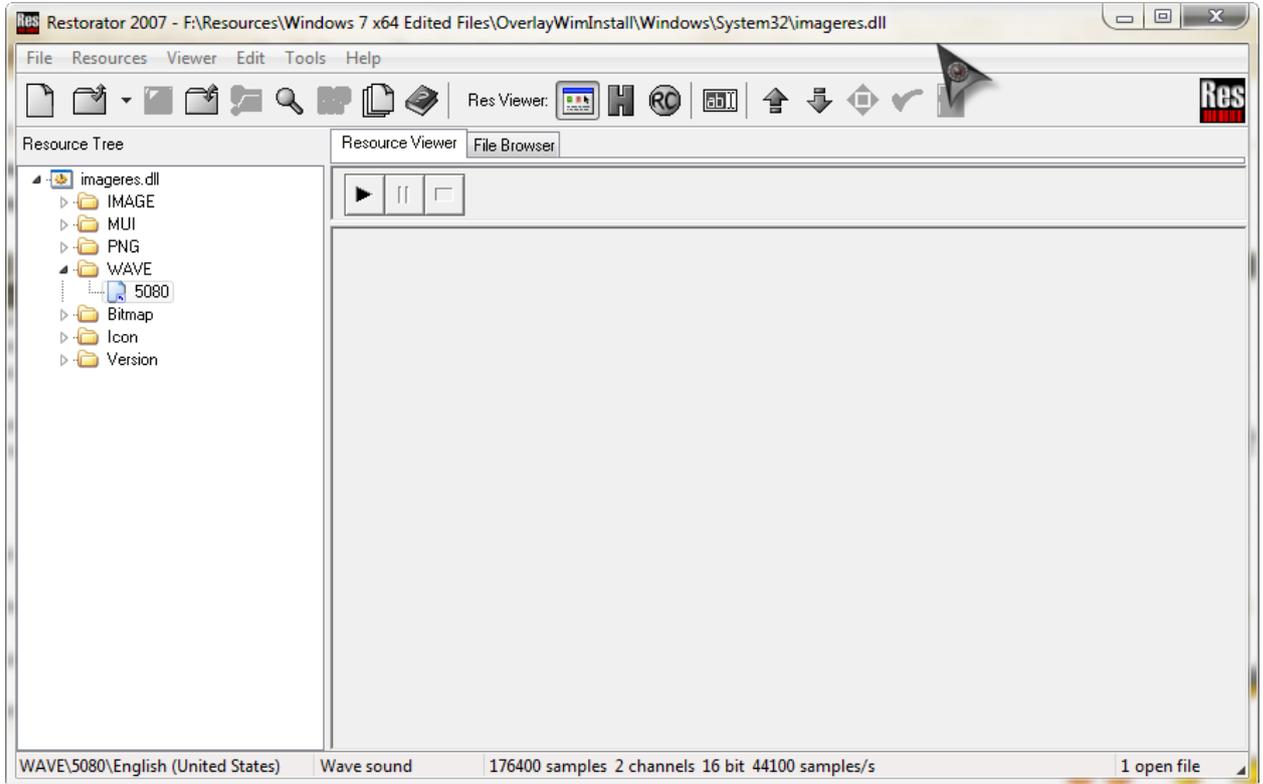
CODE: SELECT ALL

```
5031 -> Resolution -> 1280x1024 - Extension -> JPG  
5032 -> Resolution -> 1280x960 - Extension -> JPG  
5033 -> Resolution -> 1024x768 - Extension -> JPG  
5034 -> Resolution -> 1600x1200 - Extension -> JPG  
5035 -> Resolution -> 1440x900 - Extension -> JPG  
5036 -> Resolution -> 1920x1200 - Extension -> JPG  
5037 -> Resolution -> 1280x768 - Extension -> JPG  
5038 -> Resolution -> 1360x768 - Extension -> JPG  
5039 -> Resolution -> 1024x1280 - Extension -> JPG  
5040 -> Resolution -> 960x1280 - Extension -> JPG  
5041 -> Resolution -> 900x1440 - Extension -> JPG
```

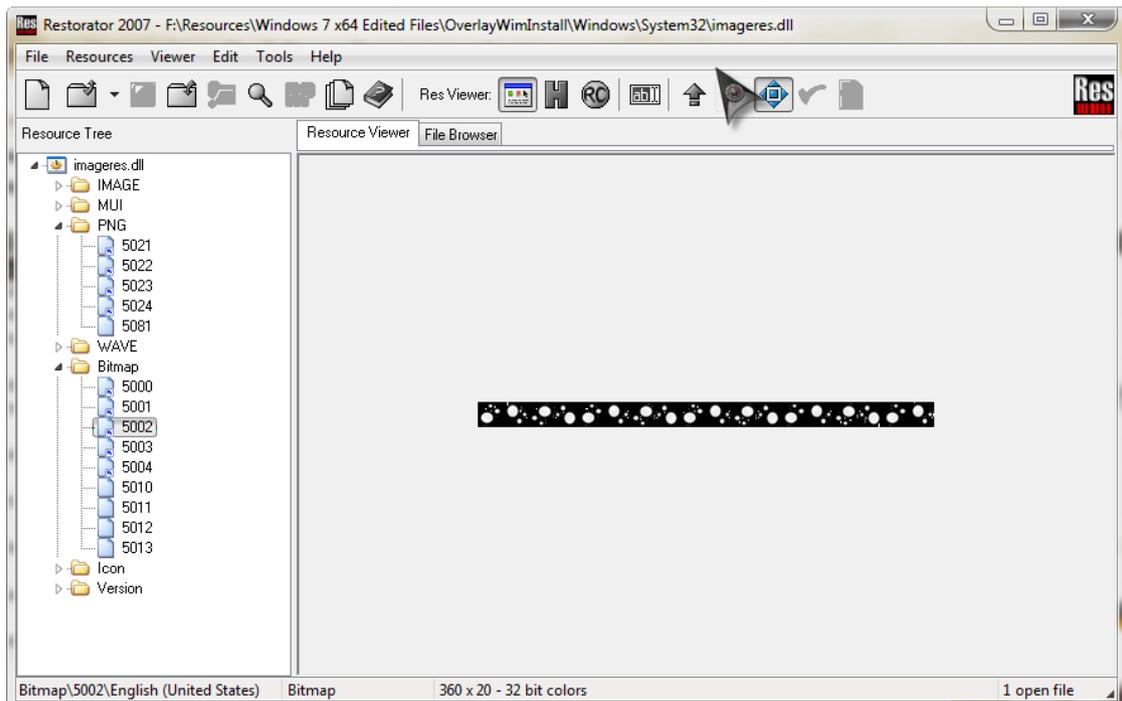
5042 -> Resolution -> 768x1280 - Extension -> JPG

5043 -> Resolution -> 768x1360 - Extension -> JPG

You can also change the StartUp sound by replacing it in the wave folder, its a .wav extension and the name is 5080:



and the rotation orb in the PNG folder:



save changes.

## Editing The Installation \ Change The Windows 7 Logo:

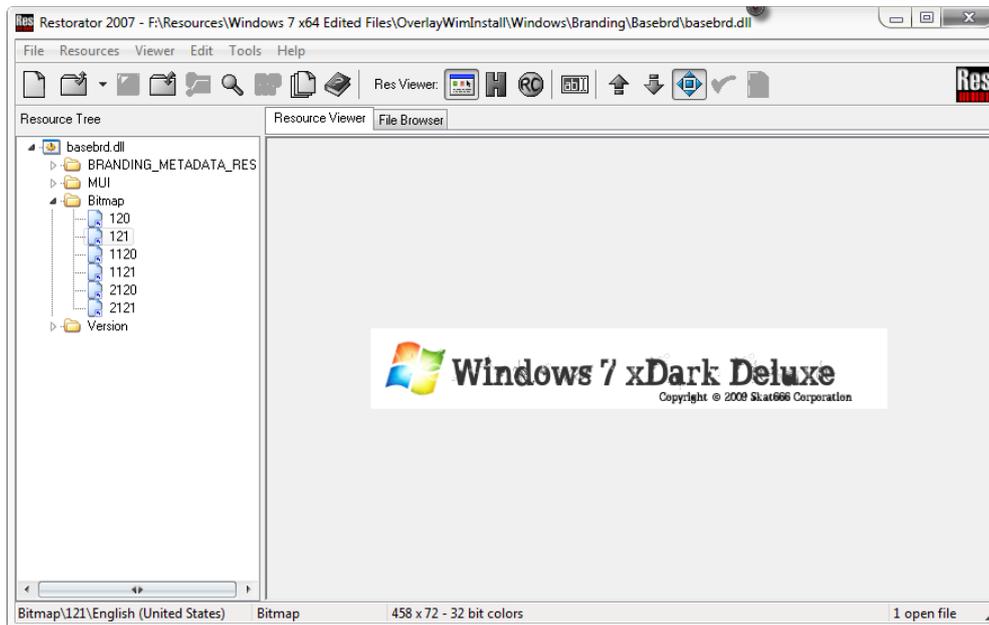
Go to:

CODE: SELECT ALL

---

```
windows/branding/Basebrd/basebrd.dll
```

open it with Restorator 2007 and change the images inside the BITMAP folder:



Now if you are not going to keep modifying save all changes made to the install wim by unmounting the image:

CODE: SELECT ALL

---

```
imagex /unmount /commit F:\W7\Mount
```

---

## Building Windows 7 Basics Part 3 A - The Look

Mount the Install.wim:

CODE: SELECT ALL

---

```
imagex /mountrw F:\W7\DVD\sources\install.wim 5 F:\W7\Mount
```

## Changing The Wallpapers Integrated In Windows 7:

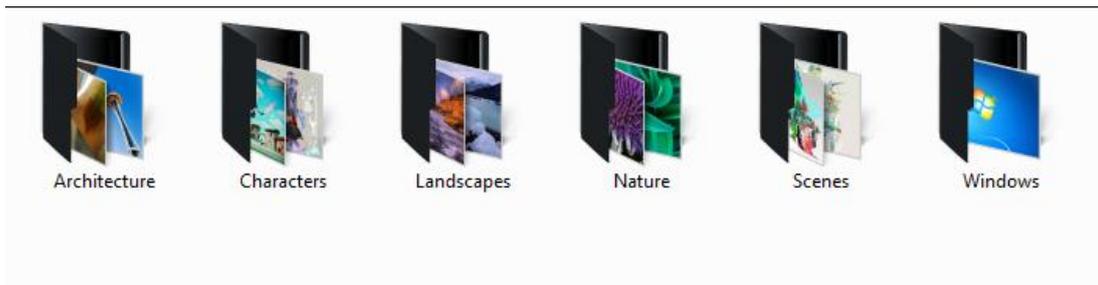
Go to:

CODE: SELECT ALL

---

```
windows/web/wallpaper
```

and replace the images inside the folders for your images with the same *number* and *extension*, *resolution* is not important but try to make different resolutions, or high quality wallpapers:



The default wallpaper to load when windows starts is:

CODE: SELECT ALL

---

```
windows/img0.jpg (in /web/wallpapers)
```

## Change The Windows 7 Visual Theme:

Go to:

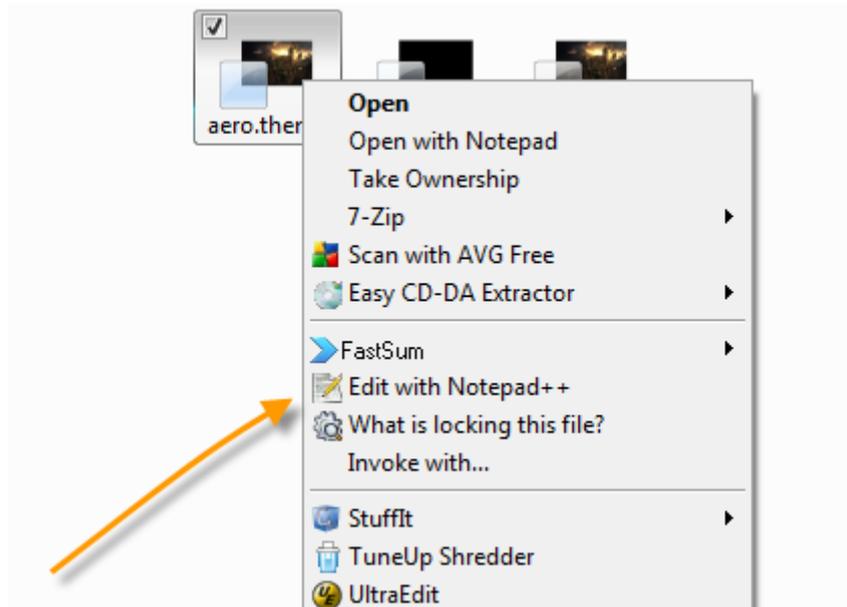
CODE: SELECT ALL

---

```
windows/resources/themes
```



copy all the themes you want to include inside the folder, to make a default theme you have to open the aero theme with Notepad++:



and change in line 51 the Aero name theme for your default theme name:

```

42 DefaultValue.MUI=@main.cpl,-1020
43
44 [Control Panel\Desktop]
45 Wallpaper=%SystemRoot%\web\wallpaper\Windows\img0.jpg
46 TileWallpaper=0
47 WallpaperStyle=10
48 Pattern=
49
50 [VisualStyles]
51 Path=%ResourceDir%\Themes\Aero\Aero.msstyles
52 ColorStyle=NormalColor
53 Size=NormalSize
54 ColorizationColor=0x6B74B8FC
55 Transparency=1
56
57 [boot]
58 SCRNSAVE.EXE=

```

and in line 45 if you want a different wallpaper to startup with the theme instead of the one you placed in the step we did before:

```

39 UpArrow=%SystemRoot%\cursors\ aero_up.cur
40 Wait=%SystemRoot%\cursors\ aero_busy.ani
41 DefaultValue=Windows Aero
42 DefaultValue.MUI=@main.cpl,-1020
43
44 [Control Panel\Desktop]
45 Wallpaper=%SystemRoot%\web\wallpaper\Windows\img0.jpg
46 TileWallpaper=0
47 WallpaperStyle=10
48 Pattern=
49
50 [VisualStyles]
51 Path=%ResourceDir%\Themes\Aero\Aero.msstyles

```

download the uxtheme patches:



CODE: [SELECT ALL](#)

---

<http://www.sk8tr.iblogger.org>

copy the windows 7 Uxtheme Patches for making unsigned themes to work, otherwise your theme will not work, replace all these 3 files in:

CODE: [SELECT ALL](#)

---

`windows\system32`

### Change User Account Pictures:

Go to:

CODE: [SELECT ALL](#)

---

`programdata/microsoft/user account pictures`

and replace the 2 pics outside and the 35 pics inside the Default Pictures folder:



Images must be the same *resolution* (128x128), the same *extension* (.BMP) and the same *name*.

The Default picture its *User.bmp*.

Mount your install.wim:

CODE: SELECT ALL

---

```
imagex /mountrw F:\W7\DVD\sources\install.wim 5 F:\W7\Mount
```

### Changing the Windows 7 Scheme Sounds:

Go to:

CODE: SELECT ALL

---

```
windows/media
```

and replace the wav files for the wav files you want:



the folders are for sound schemes and the files outside the folders are non schemed sounds.

### Changing the Windows 7 Cursors:

Go to:

CODE: SELECT ALL

---

```
windows/cursors
```

and change them for your cursors or add more if you like.

---

## Changing The Windows 7 System Icons:

Go to:

32bits:

CODE: SELECT ALL

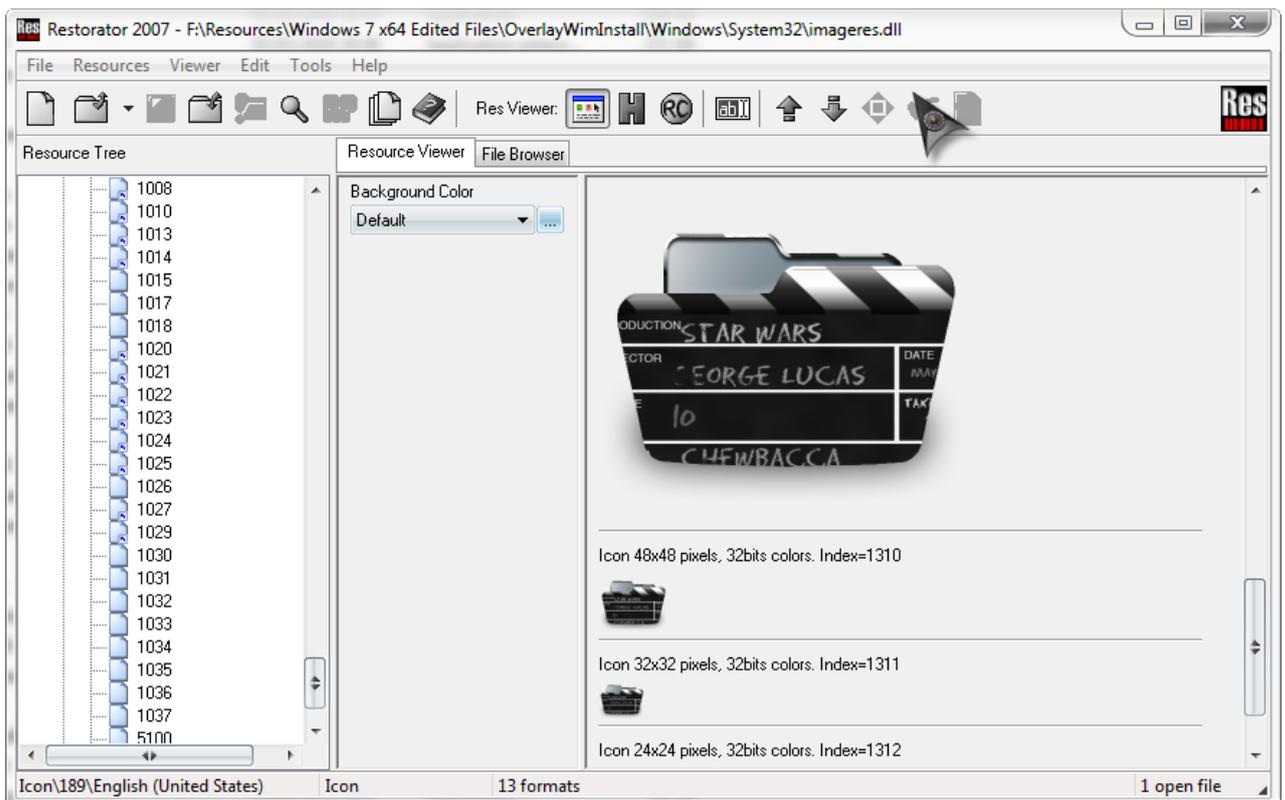
```
windows/system32/imageres.dll
```

64bits:

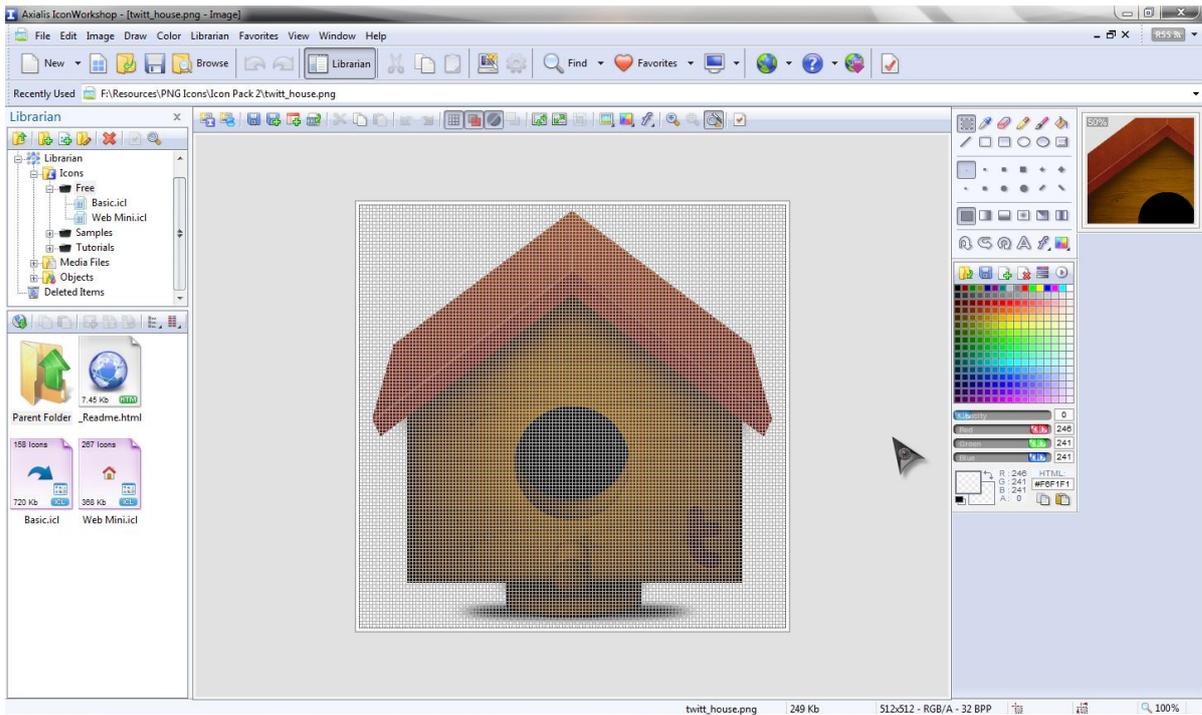
CODE: SELECT ALL

```
windows/system32/imageres.dll  
windows/SysWOW64/imageres.dll
```

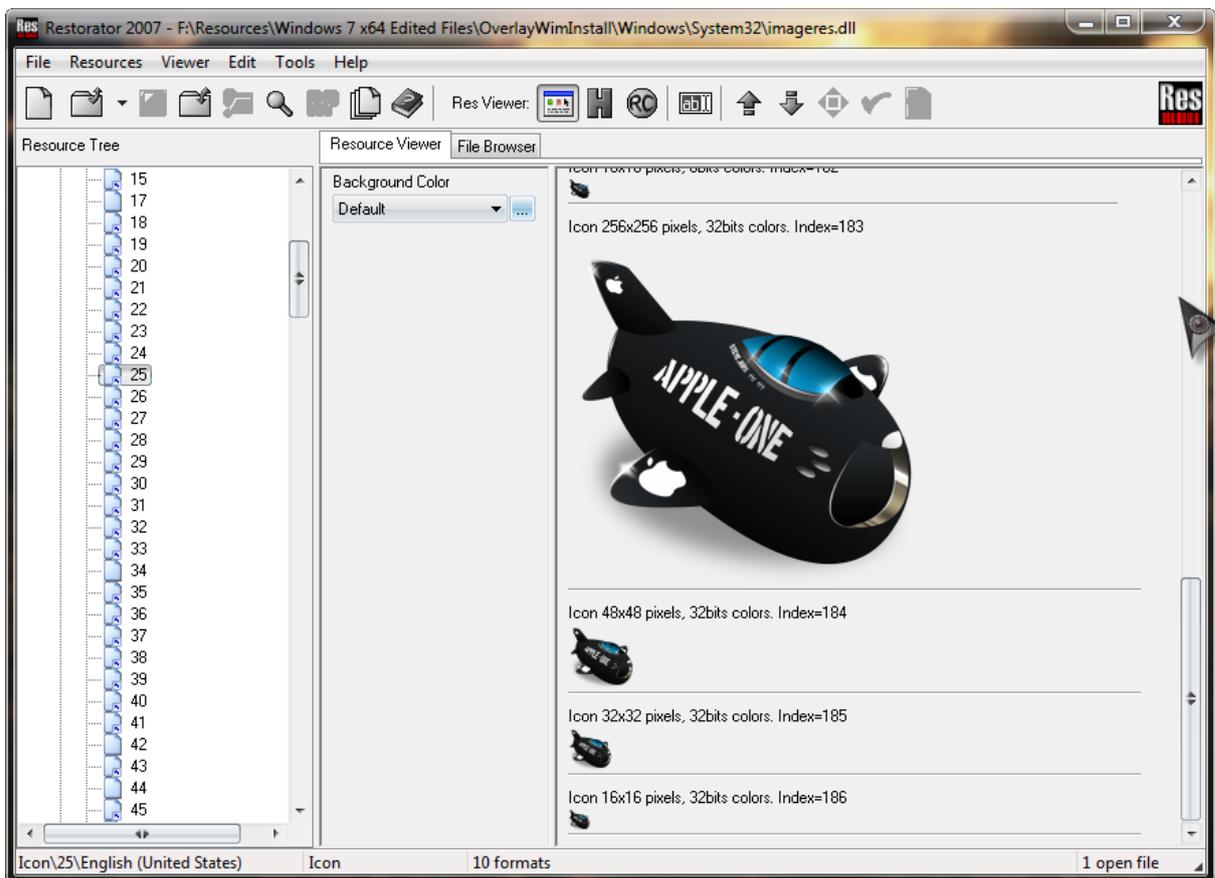
open it with Restorator 2007, and expand the *Icon Entry* folder:



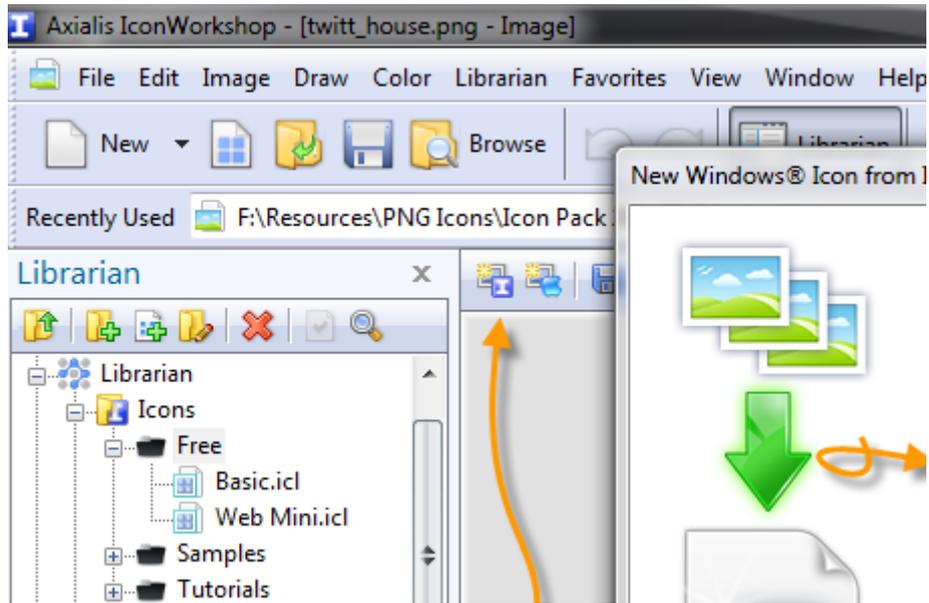
to resize icons faster we will use *Axialis IconWorkshop*, run the program and drag and drop any .PNG icon inside:



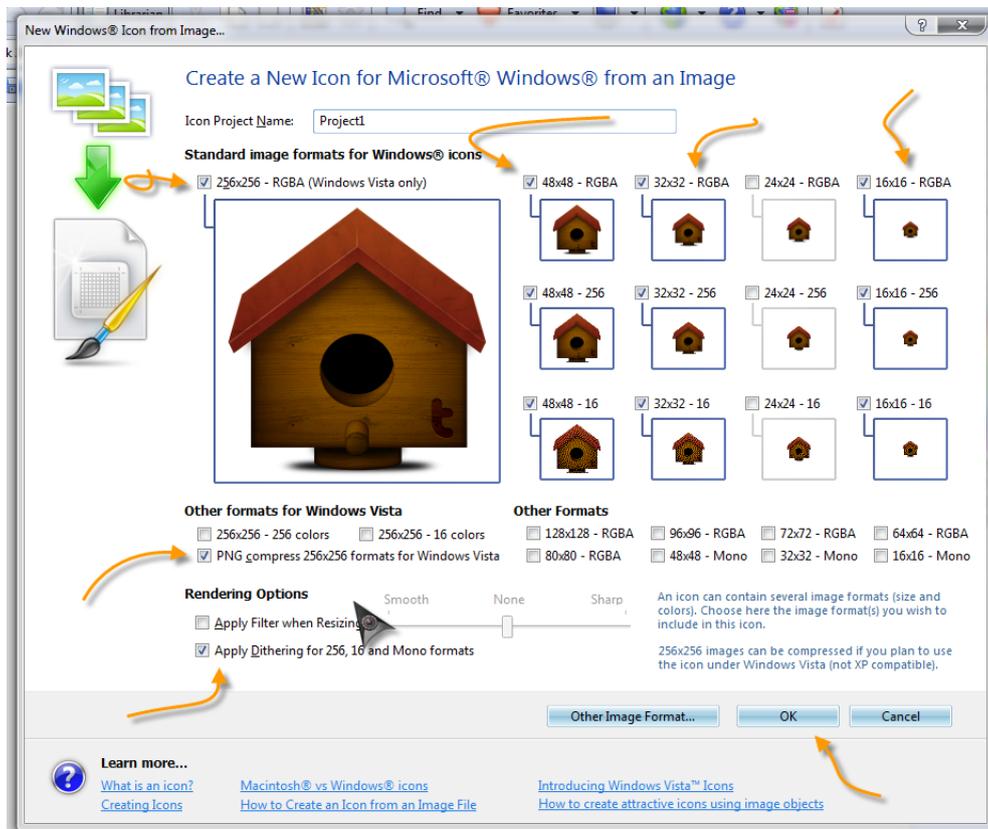
I will use for this example the Icon number 25 that has these resolutions; 256 x 256, 48 x 48, 32 x 32 and 16 x 16 all of them are 32 bits, 48 x 48, 32 x 32, 16 x 16 in 4 and 8 bits too, you can include more resolutions if you want:

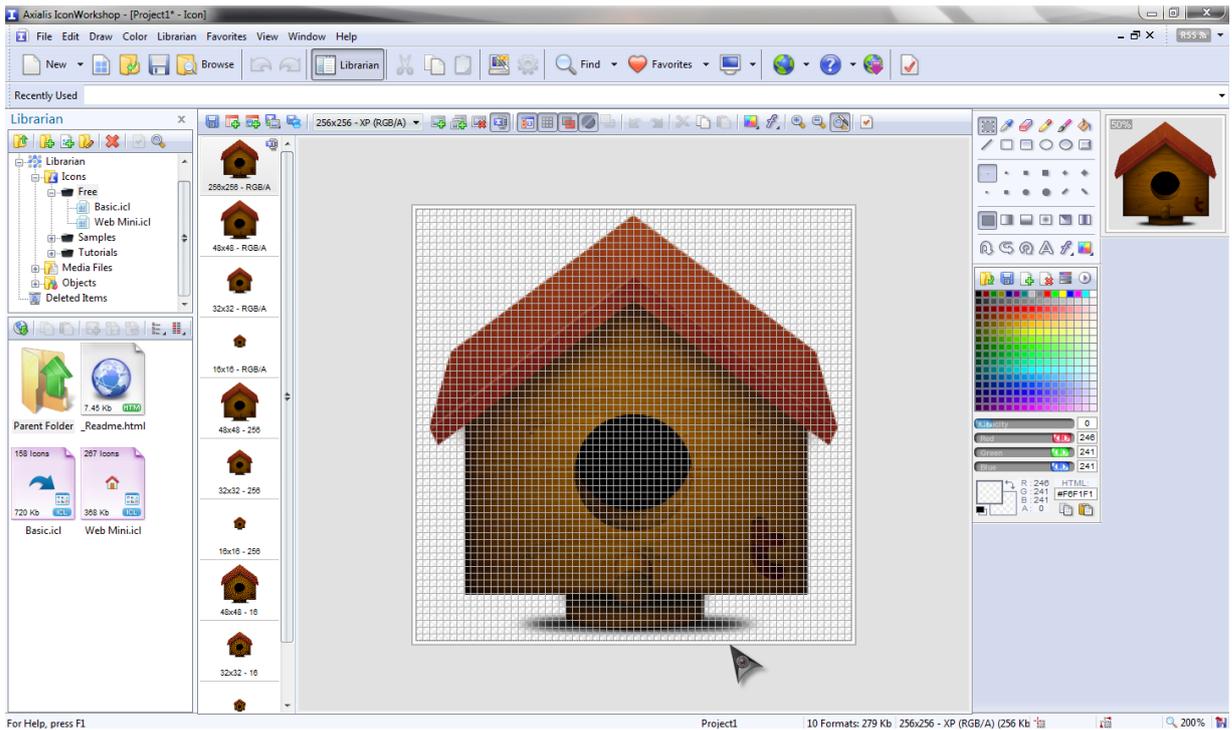


Click in create a new Windows Icon Project:

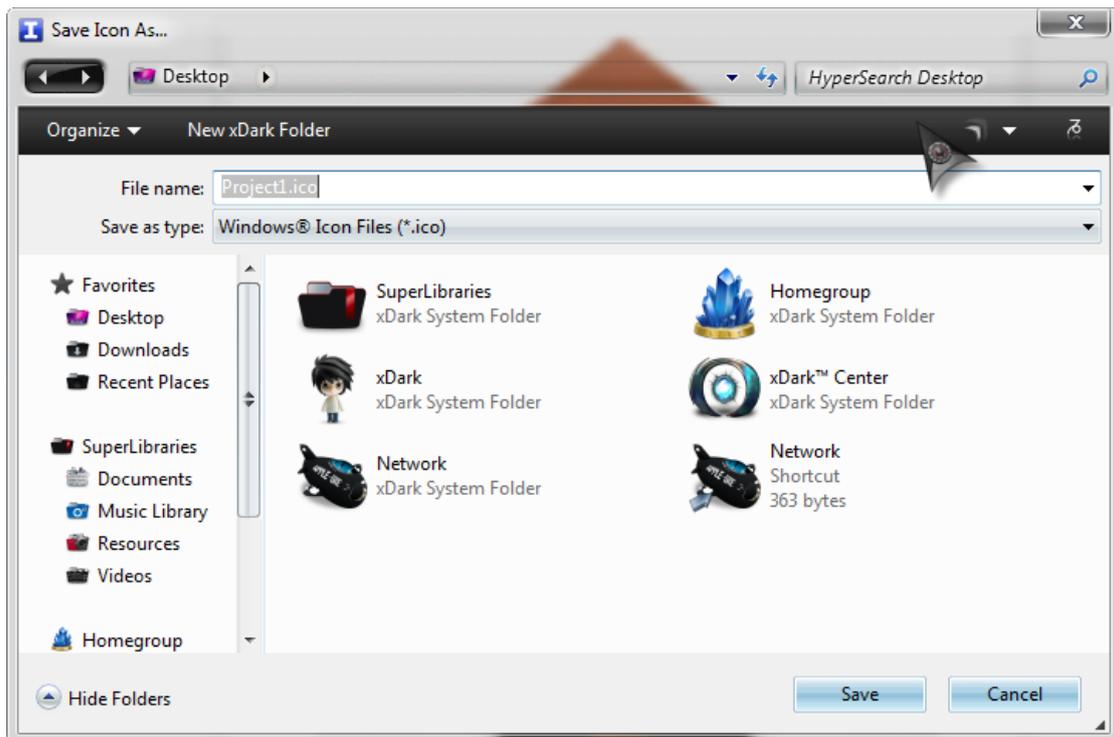


and select the different resolutions that you want to include, then click ok:

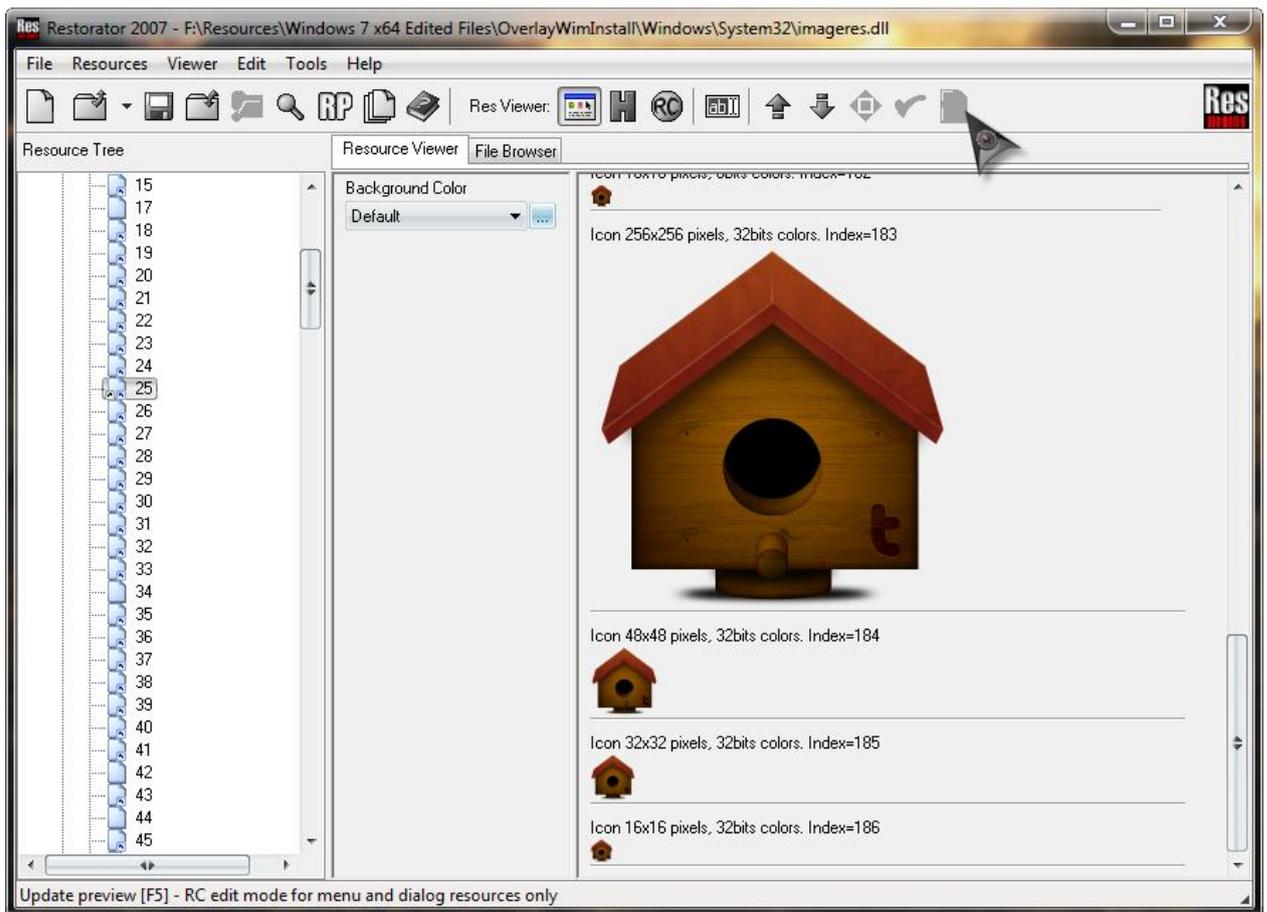




save it, *file* -> *save as*:



and drag and drop the saved file in the number of the icon that you are going to change, in this example we used number 25:



follow the same step to change all the Icons that you want to change, you will find more in:

**32bits:**

CODE: SELECT ALL

---

```
windows/system32/shell32.dll
```

**64bits:**

CODE: SELECT ALL

---

```
windows/system32/shell32.dll  
windows/SysWOW64/shell32.dll
```

but the more important files are *imageres.dll* and *explorer.exe*.

### Change the Windows 7 Start Orb:

Go to:

32bits:

CODE: SELECT ALL

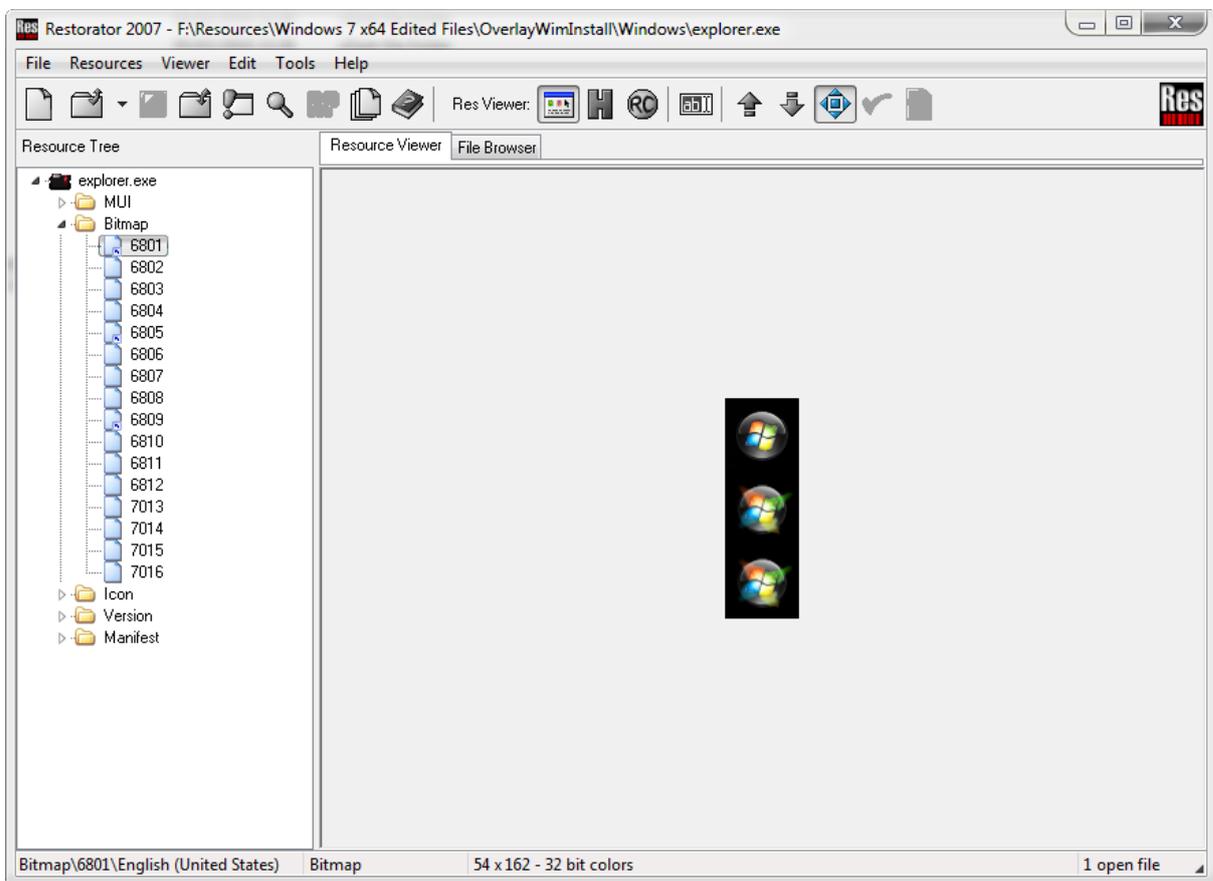
```
windows/explorer.exe
```

64bits:

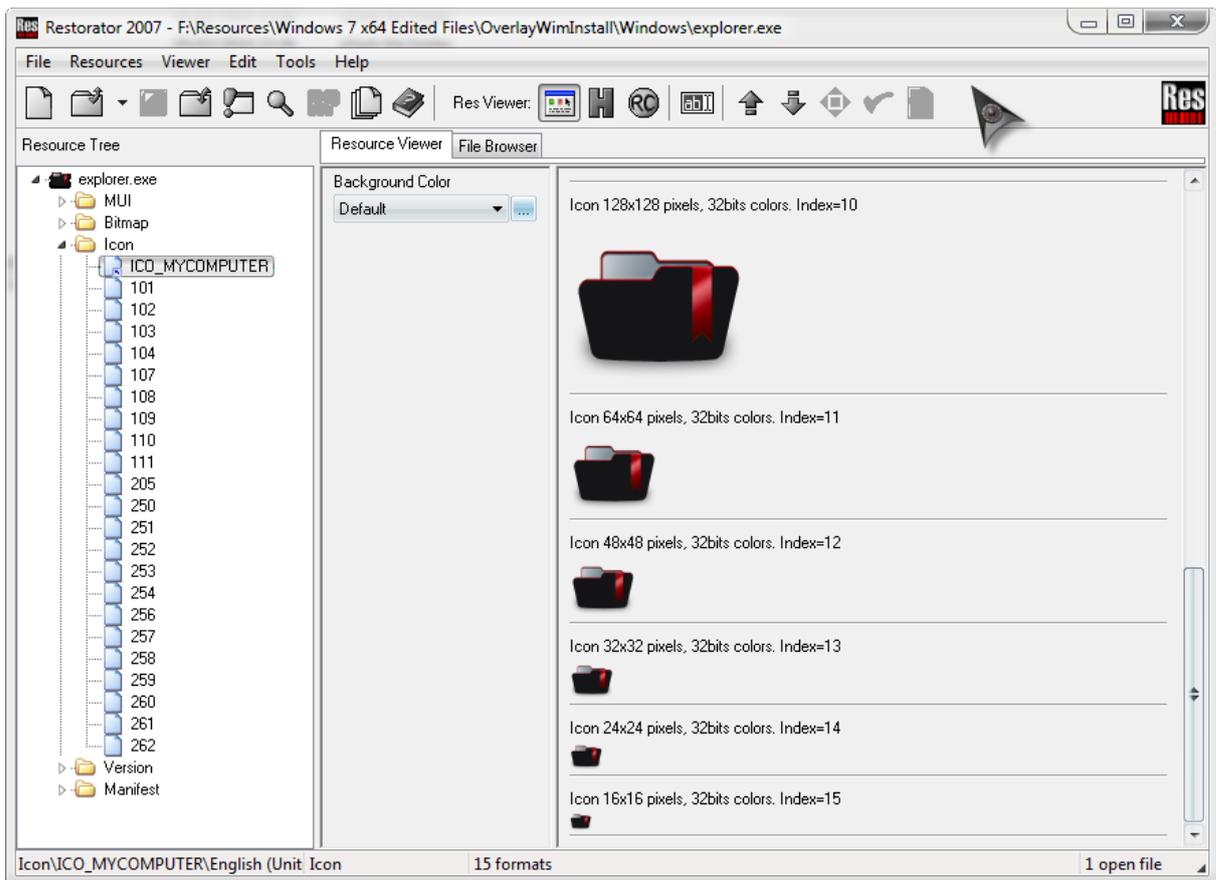
CODE: SELECT ALL

```
windows/explorer.exe  
windows/SysWOW64/explorer.exe
```

open it with Restorator 2007 and replace the images 6801, 6805, 6809 inside the Bitmap folder:



these are .BMP transparent images and must be same *resolution*, *name* and *extension*, there are some more system icons you can change in the Icon Entry folder of the explorer.exe like the Library icon:



### Include More Windows Sidebar Gadgets:

Go to:

*32bits:*

CODE: SELECT ALL

---

```
program files/windows sidebar
```

*64bits:*

CODE: SELECT ALL

---

```
program files/windows sidebar  
program files (x86)/windows sidebar
```

and copy all the gadgets that you want to include inside the gadgets folder.

now you can save your changes by unmounting the image:

CODE: SELECT ALL

---

```
imagex /unmount /commit F:\W7\Mount
```

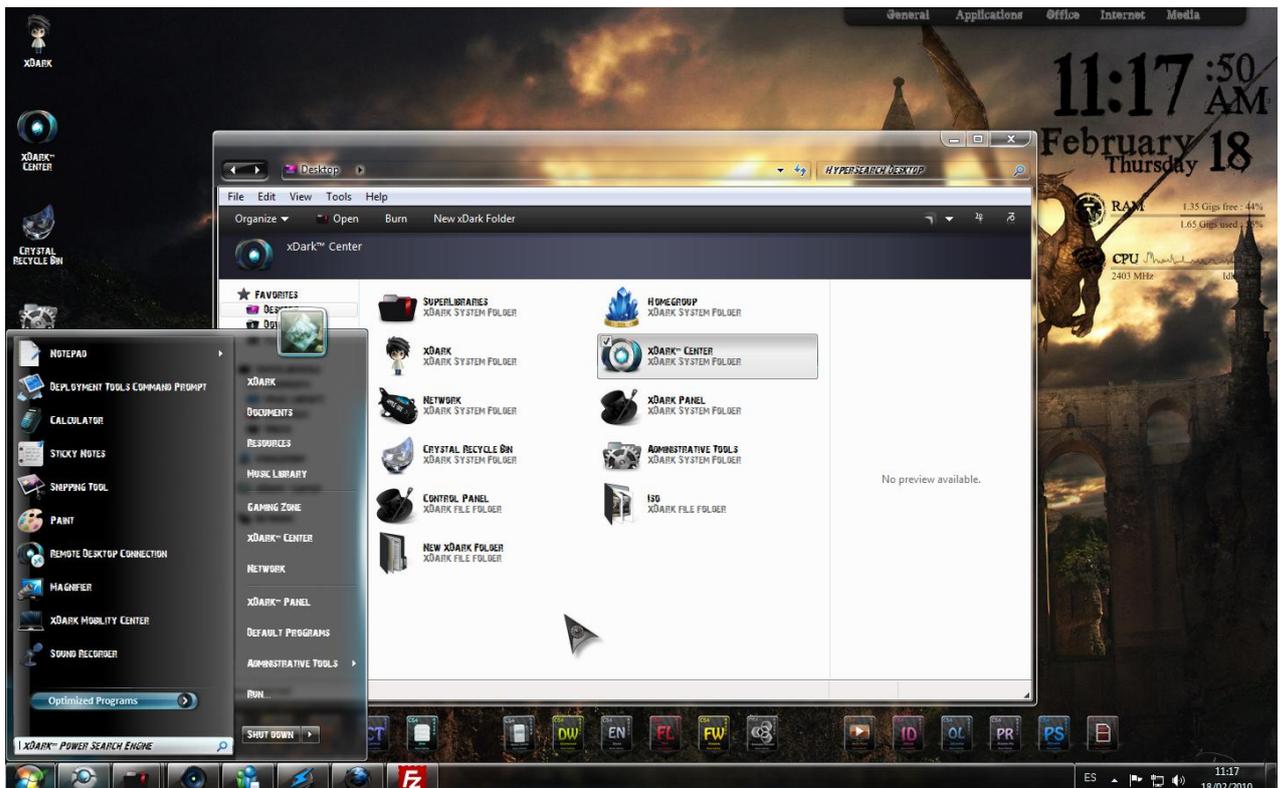
---

## Building Windows 7 Basics Part 3 C - The Look

### How To Modify Windows 7 Visual Custom Themes

I will use my 7 xDark 2.4 custom theme based on Steelflash for this tutorial, but you can use any custom theme you like although you may notice some locations could change in other themes it will not be very difficult to find once you understand this guide.

#### Visual Theme xDark 2.4:



CODE: [SELECT ALL](#)

[http://www.deviantart.com/download/154897112/xDark\\_v2\\_4\\_by\\_xuliikoo.rar](http://www.deviantart.com/download/154897112/xDark_v2_4_by_xuliikoo.rar)

Open the file named xDark v2.4 with Notepad++, In line number 5 you can change the name of the theme and in line6 the background shadow from 0 default, 1 shadow, 2 no shadow:

```
3 [Theme]
4 ; Windows 7 - IDS_THEME_DISPLAYNAME_AERO
5 DisplayName=xDark v2.0
6 SetLogonBackground=1
```

In line number 9 you can change the default theme wallpaper and the root of the wallpaper:

```
8 [Control Panel\Desktop]
9 Wallpaper=%windir%\Web\Wallpaper\Windows\img0.jpg
10 TileWallpaper=0
11 WallpaperStyle=10
```

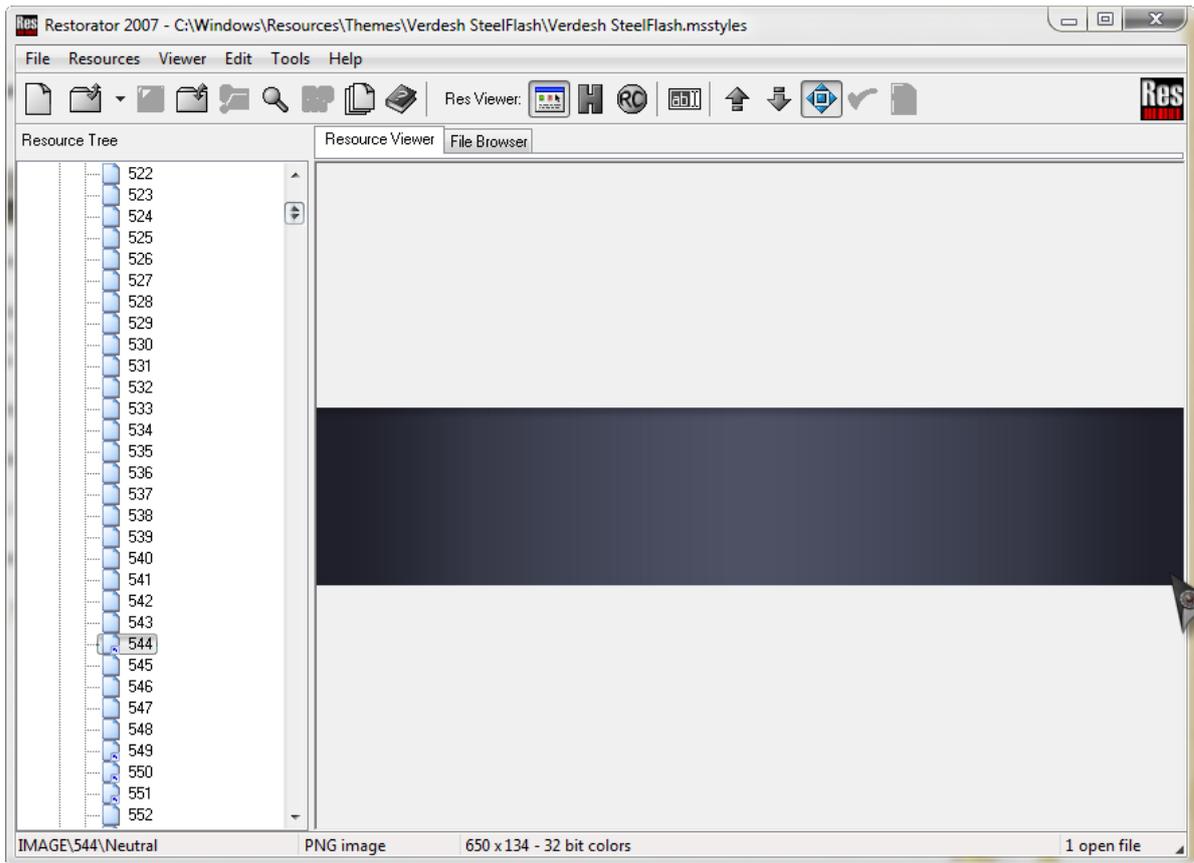
In line number 15 you can change the root of the theme itself, not the configuration file but the theme, in this case its inside the Verdesh Steelflash folder:

```
14 [VisualStyles]
15 Path=%SystemRoot%\resources\Themes\Verdesh SteelFlash\Verdesh SteelFlash.msstyl
16 ColorStyle=NormalColor
17 Size=NormalSize
18 ColorizationColor=0X1A575757
19 Transparency=1
20 Composition=1
21 VisualStyleVersion=10
```

In lines 35 to 50 you can change the default Cursors to load with the theme, you will notice it says the function of the cursor at the end of the name (Example: Pulse Glass Help.cur <- Help Function), number 35 is the default cursor:

```
34 [Control Panel\Cursors]
35 Arrow=%SystemRoot%\Cursors\Pulse Glass\Pulse_Glass.ani
36 Help=%SystemRoot%\Cursors\Pulse Glass\Pulse Glass Help.cur
37 Hand=%SystemRoot%\Cursors\Pulse Glass\Pulse_Glass_Link.ani
38 AppStarting=%SystemRoot%\Cursors\Pulse Glass\Pulse_Glass_Working.ani
39 Wait=%SystemRoot%\Cursors\Pulse Glass\Pulse_Glass_busy.ani
40 NWPen=%SystemRoot%\Cursors\Pulse Glass\Pulse Handwriting.cur
41 No=%SystemRoot%\Cursors\Pulse Glass\Pulse Unavailable.cur
42 SizeNS=%SystemRoot%\Cursors\Pulse Glass\Pulse Resize Vertical.cur
43 SizeWE=%SystemRoot%\Cursors\Pulse Glass\Pulse Resize Horizontal.cur
44 SizeNWSE=%SystemRoot%\Cursors\Pulse Glass\Pulse Resize Diagonal-Left.cur
45 SizeNESW=%SystemRoot%\Cursors\Pulse Glass\Pulse Resize Diagonal-Right.cur
46 SizeAll=%SystemRoot%\Cursors\Pulse Glass\Pulse Move.cur
47 UpArrow=%SystemRoot%\Cursors\Pulse Glass\Pulse Alternate.cur
48 DefaultValue=Pulse Glass
49 Crosshair=%SystemRoot%\Cursors\Pulse Glass\Pulse Precision.cur
50 IBeam=%SystemRoot%\Cursors\Pulse Glass\Pulse Glass Text.cur
```

Go inside the Verdesh Steelflash folder and open the main theme with Restorator 2007 and expand the Image folder:

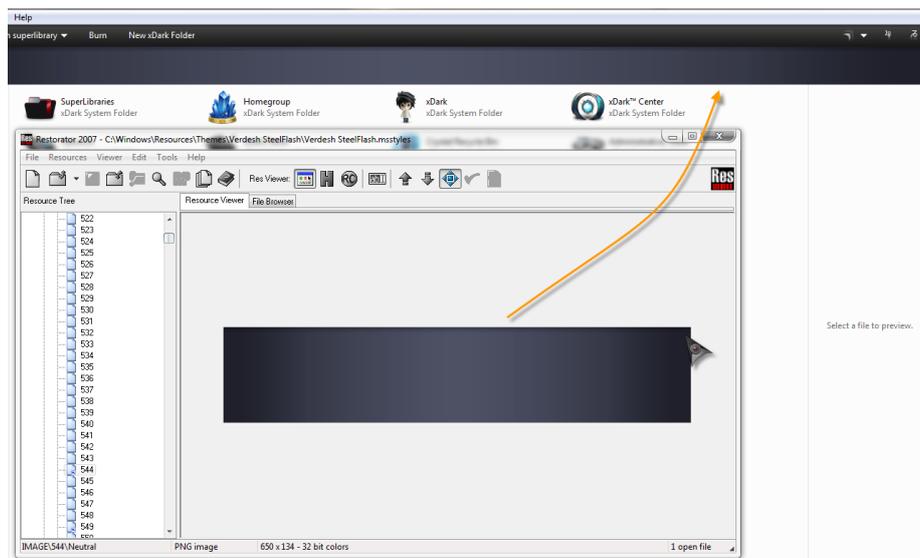


the images number:

**CODE: SELECT ALL**

544, 549, 550, 551, 1026

are the images from the explorer pane preview as shown in the following pic:

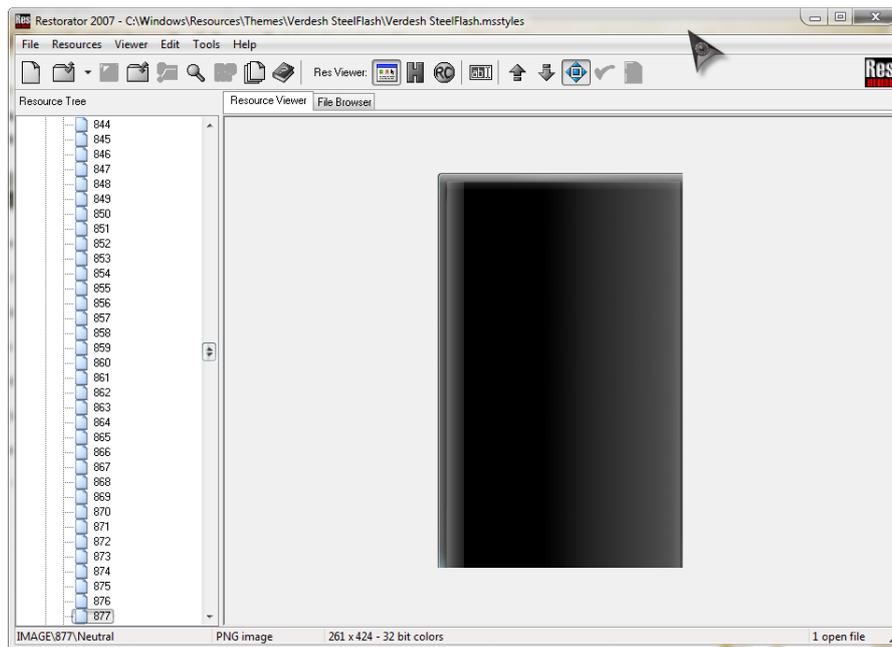


the images:

CODE: SELECT ALL

875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888,  
889, 890, 891, 892

are from the start menu:

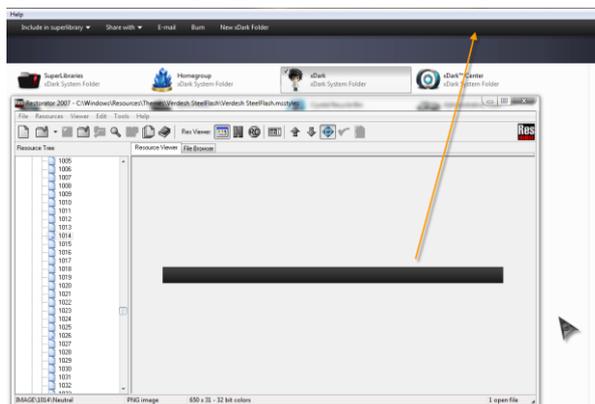


the image:

CODE: SELECT ALL

1014

is from the explorer menu:



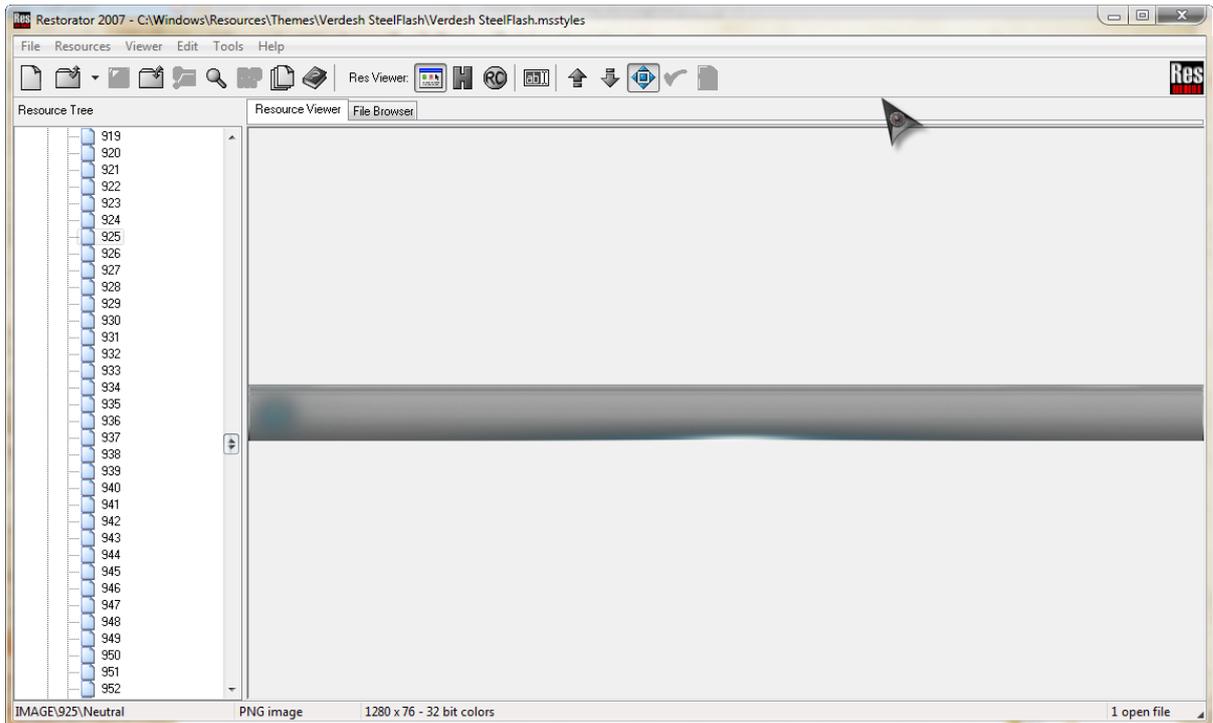
the images:

CODE: SELECT ALL

---

925, 926, 927, 928, 1170, 1171

are from the Windows 7 taskbar:



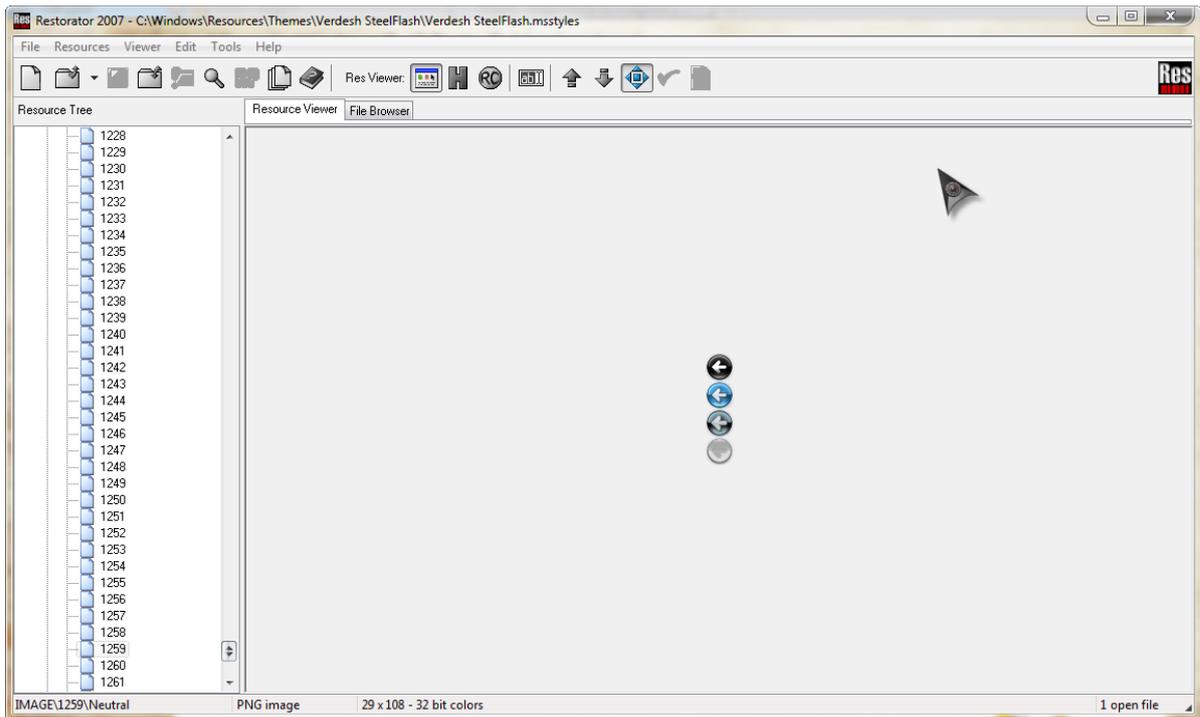
the images:

CODE: SELECT ALL

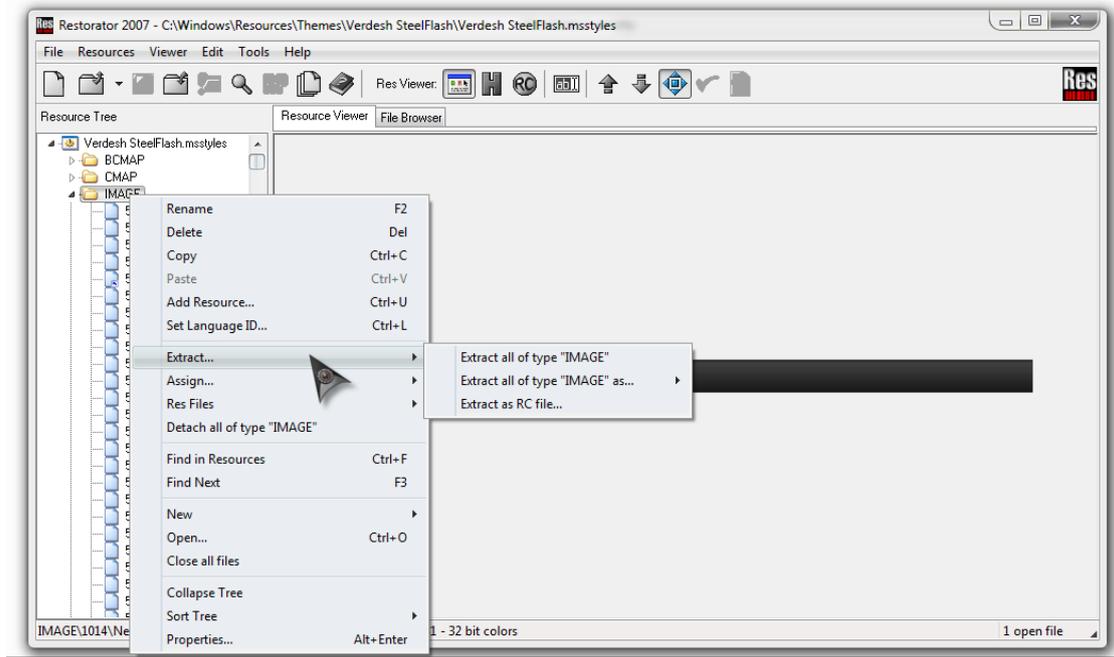
---

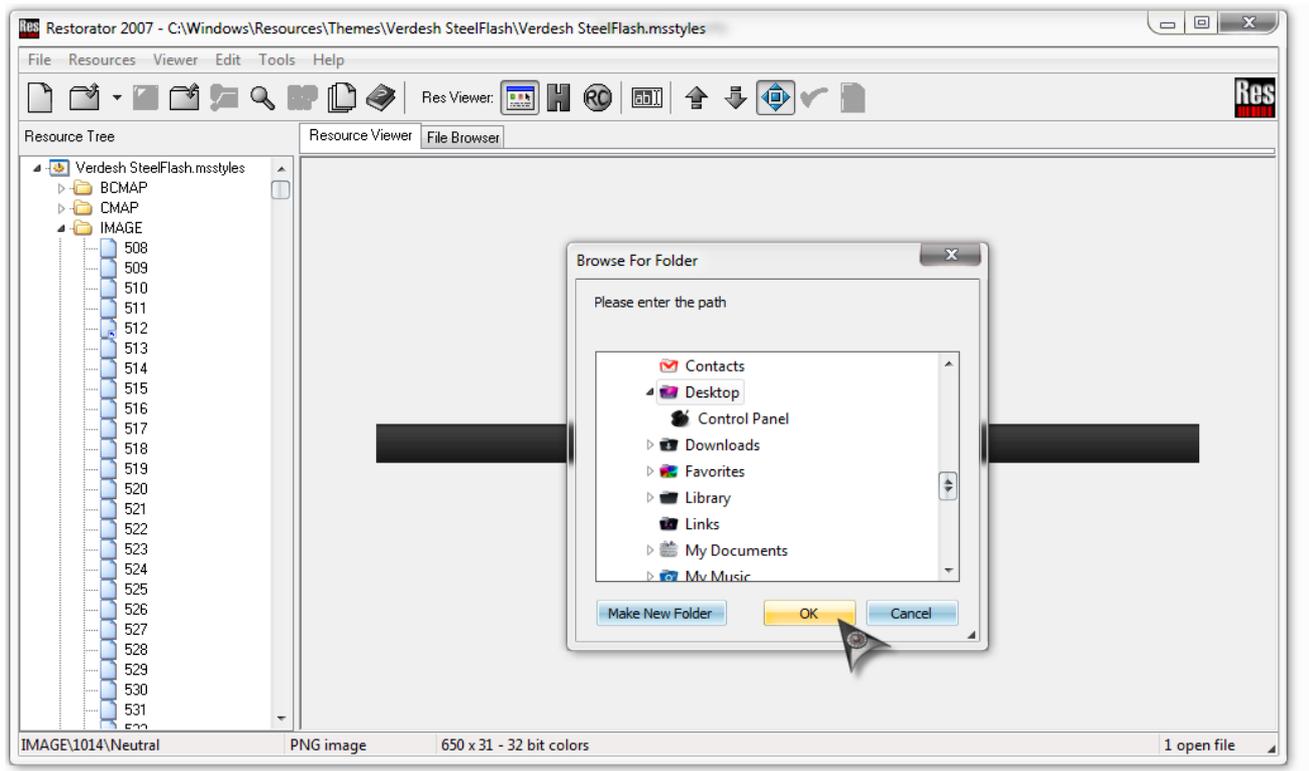
1259, 1260, 1261, 1262, 1263, 1264

are the explorer arrows, but there are more explorer arrows in the system files as i will show you in the next steps:



these are the most important theme images but you can browse for more images in the Image folder. If you want to extract all Images for easier editing right click in the Image folder and select -> extract -> extract all of type "IMAGE":





In the String folder you will see the default fonts for the theme:

```

STRINGTABLE
LANGUAGE LANG_NEUTRAL, SUBLANG_NEUTRAL
{
501, "Segoe UI, 9, Quality:ClearType"
502, "Segoe UI, 12, Quality:ClearType"
503, "Segoe UI, 9, Bold, Quality:ClearType"
504, "Segoe UI, 9, Underline, Quality:ClearType"
505, "Segoe UI, 12, Underline, Quality:ClearType"
506, "Segoe UI, 10, Quality:ClearType"
507, "Segoe UI, 9, Italic, Quality:ClearType"
}

```

These are all the steps to customize the theme, now we will see a few more options to customize the theme in the Windows 7 system files:

Go to:

32bits:

CODE: SELECT ALL

```
/windows/system32/ExplorerFrame.dll
```

64bits:

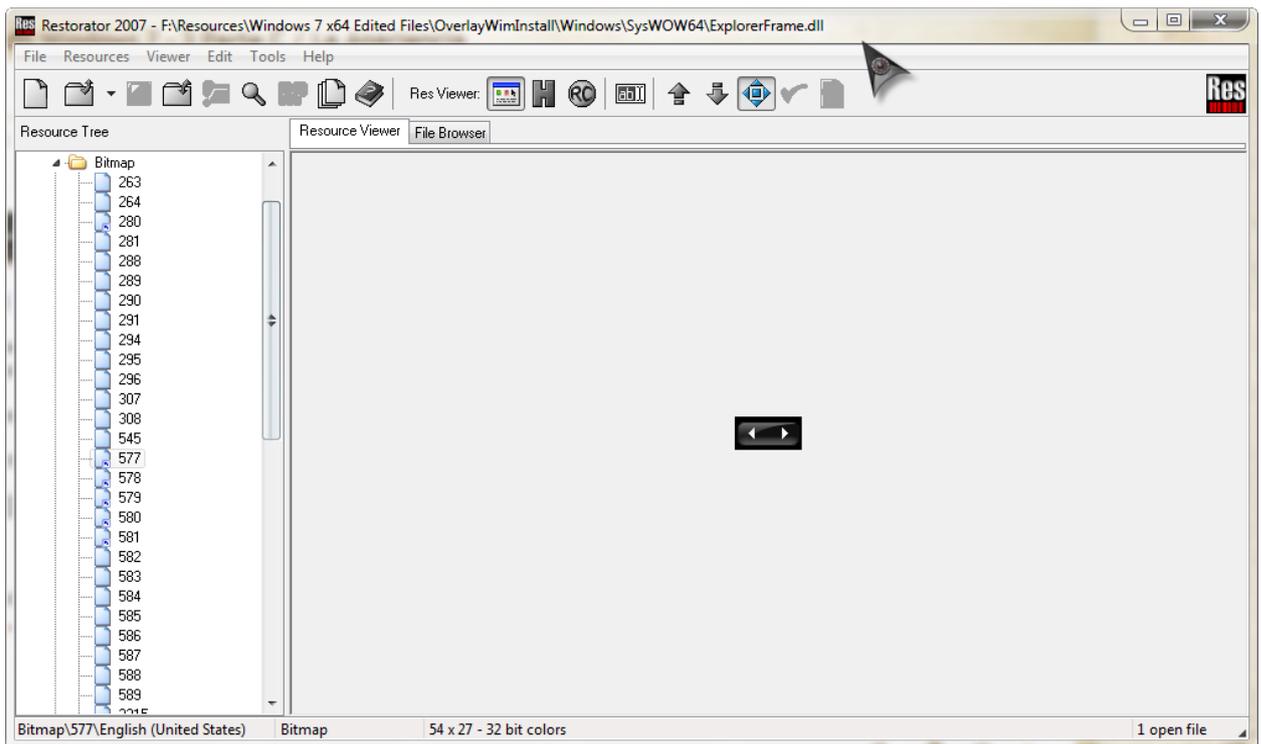
CODE: SELECT ALL

```
/windows/system32/ExplorerFrame.dll  
/windows/SysWOW64/ExplorerFrame.dll
```

expand the Bitmap folder and you will find the arrows from the Windows Explorer in the images:

CODE: SELECT ALL

```
577, 578, 579, 581
```



Go to:

*32bits:*

CODE: SELECT ALL

```
system32/shell32.dll
```

*64bits:*

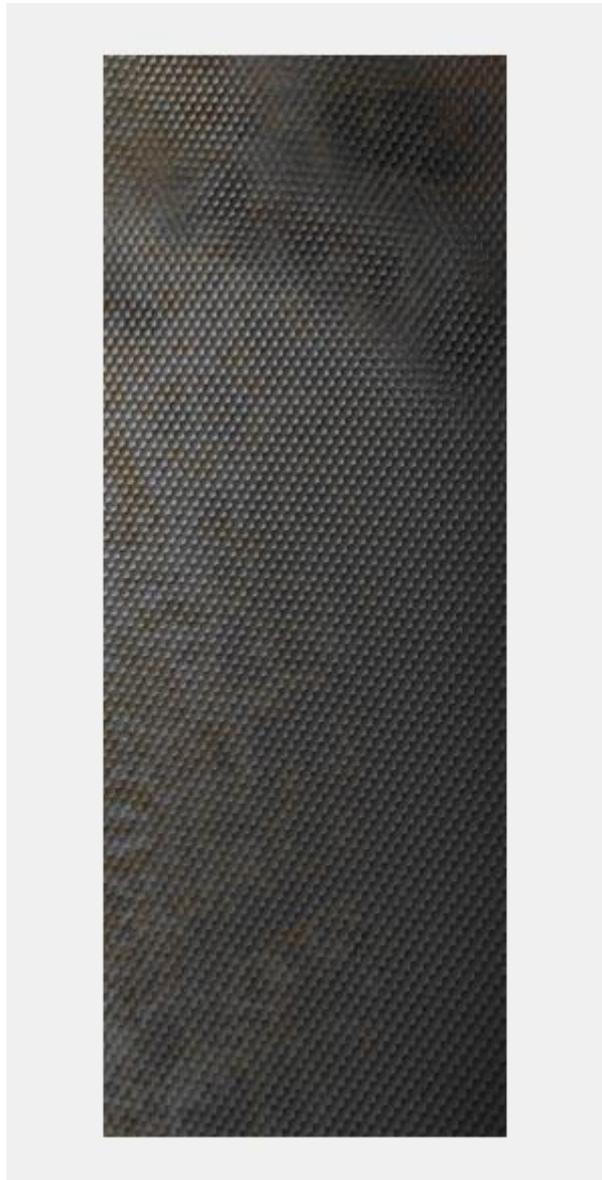
CODE: SELECT ALL

```
system32/shell32.dll  
SysWOW64/shell32.dll
```

and expand the Bitmap folder:



you will find the image from the explorer preview pane "634, 635" and the left side of the Windows Explorer "632, 633"... and a few more images you if you like)



Mount the Install.wim Image:

CODE: SELECT ALL

```
imagex /mountrw F:\W7\DVD\sources\install.wim 5 F:\W7\Mount
```

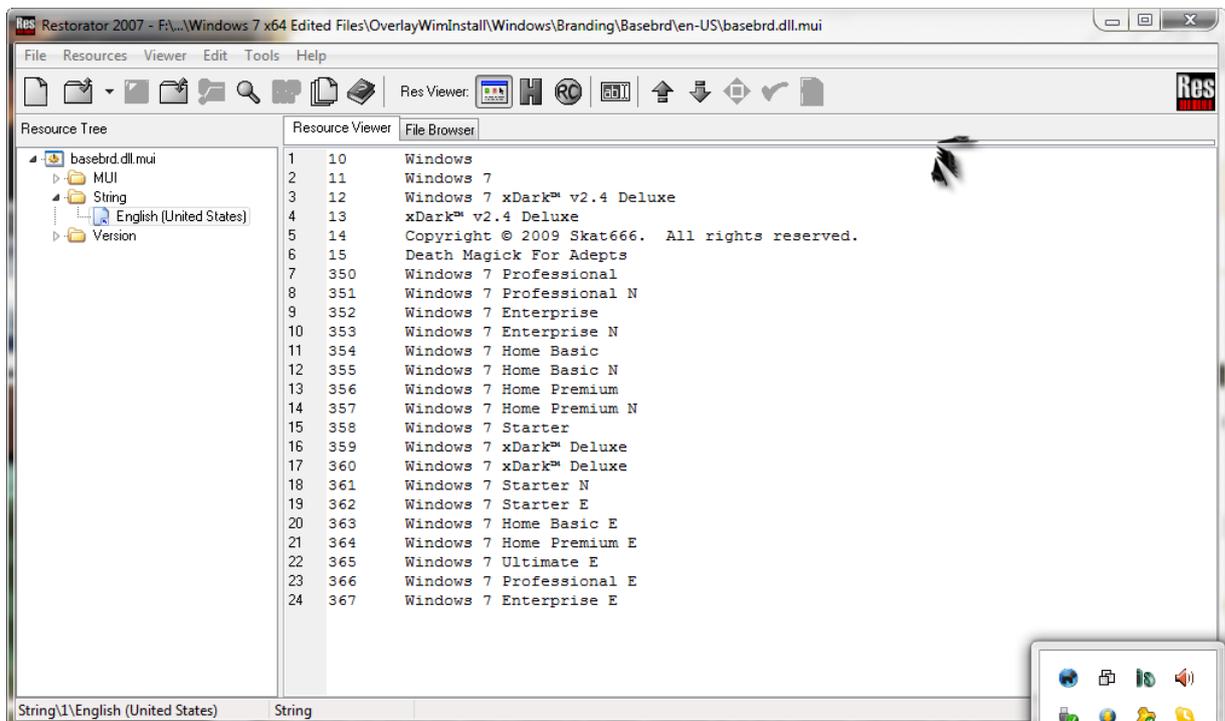
### Changing Your Windows 7 Name:

Go to:

CODE: SELECT ALL

```
windows/branding/Basebrd/en-US/basebrd.dll.mui
```

open it with Restorator 2007 and change the Windows 7 names in the String folder:



### Change The Microsoft Genuine Image in System Properties:

Go to:

CODE: SELECT ALL

```
C:\Windows\System32\systemcpl.dll
```

open it with Restorator 2007 and replace the image:

CODE: SELECT ALL

4



inside the bitmap folder.

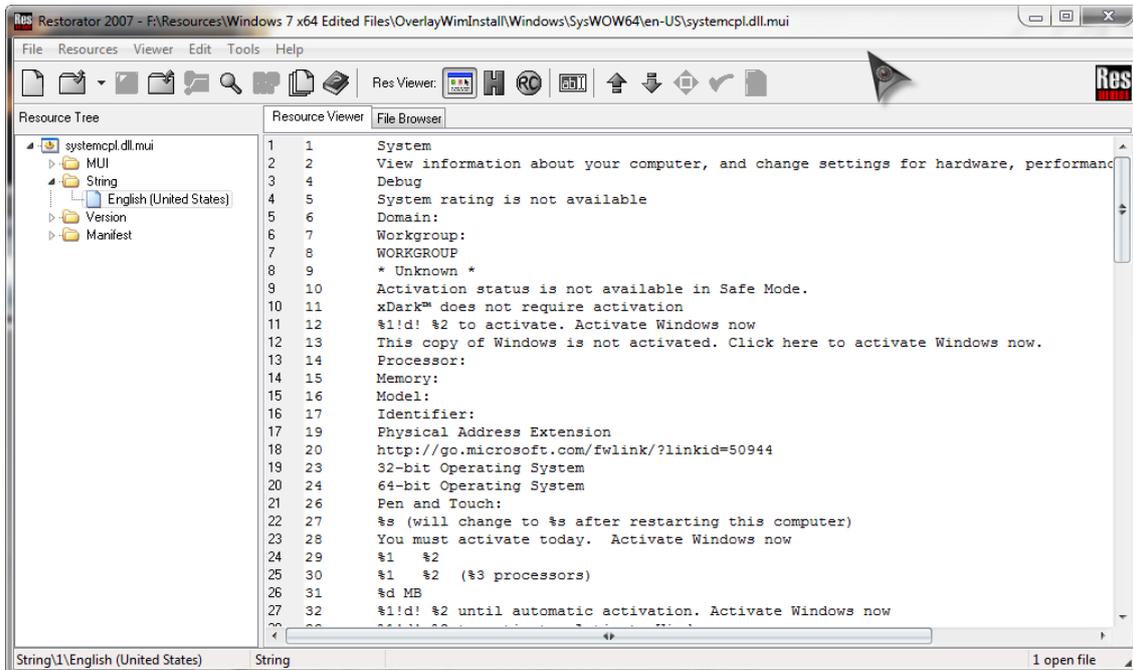
### To Change More Text In The System Properties:

Go to:

CODE: SELECT ALL

`C:\Windows\System32\en-US\systemcpl.dll.mui`

open it with Restorator 2007 and expand the string folder:



Editing The Windows 7 Language:

Every /en-us subfolder contains the language info for the application or environment of the folder where is placed, so the /en-us folder of Windows Media Player:

CODE: SELECT ALL

```
program files/windows media player/en-US
```

contains the language file info of the media player, by editing these files you may edit some of the windows media player integrated language and change the name to your own windows media player, but as these are system integrated applications you may find more windows media player files for example in:

CODE: SELECT ALL

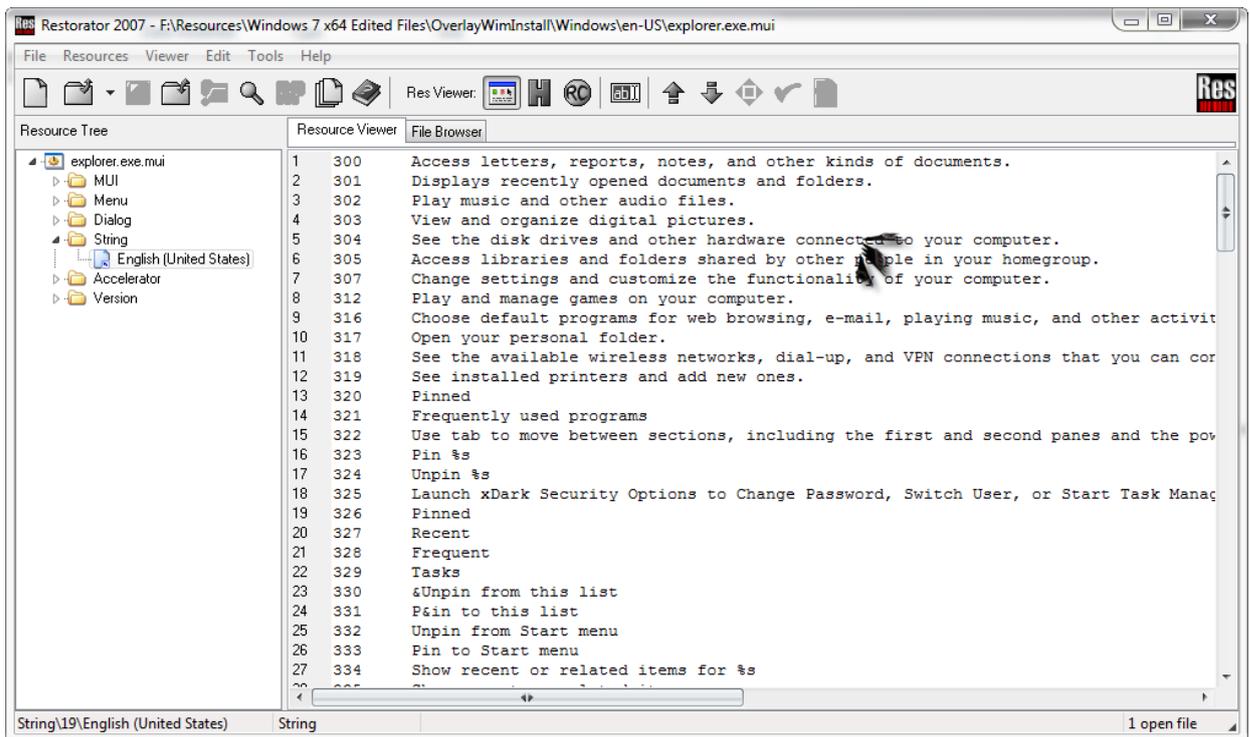
```
system32/en-US
```

for editing the language in the start menu go to:

CODE: SELECT ALL

```
windows/en-US/explorer.exe.mui
```

open it with Restorator 2007 and replace any words by editing the folder "string":



Changing Icons From Windows 7 Integrated Applications:

In this example i will use Internet Explorer but its the same procedure for any Application, go to:

32bits:

CODE: SELECT ALL

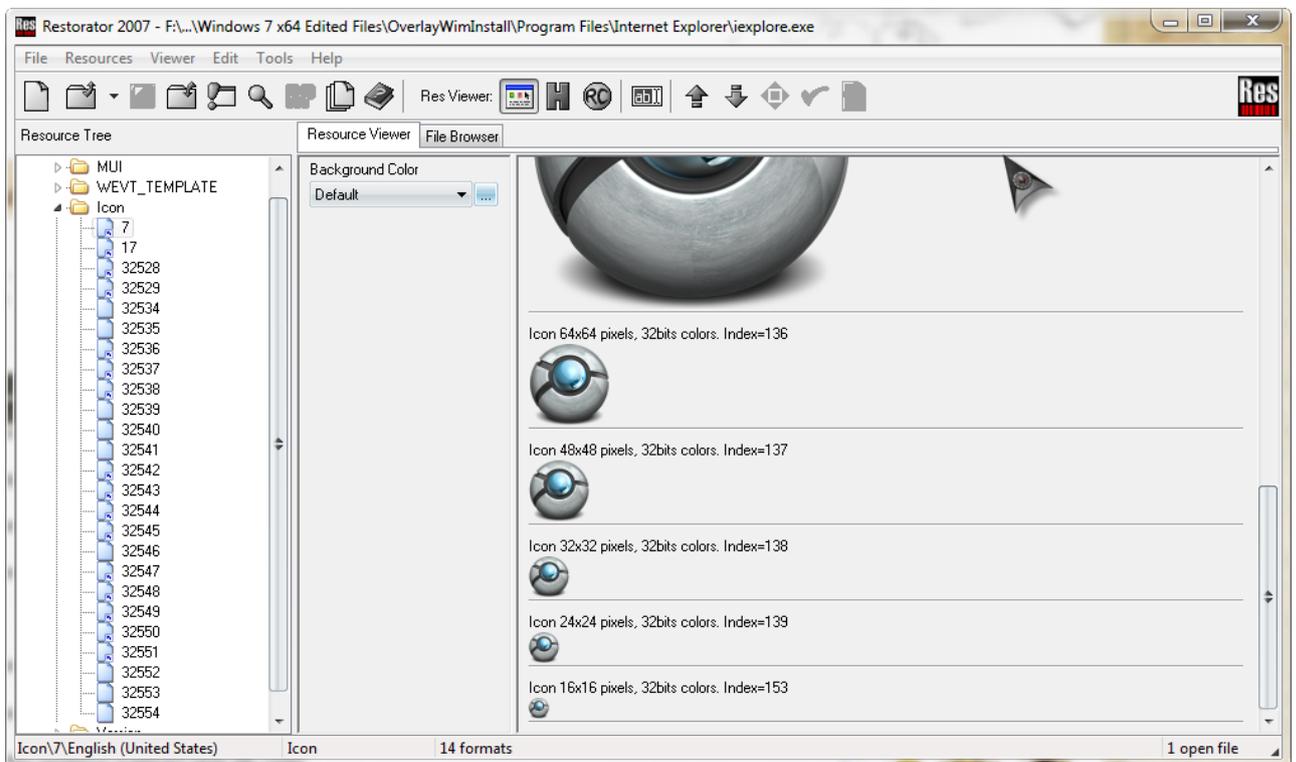
```
program files/internet explorer/iexplore.exe
```

64bits:

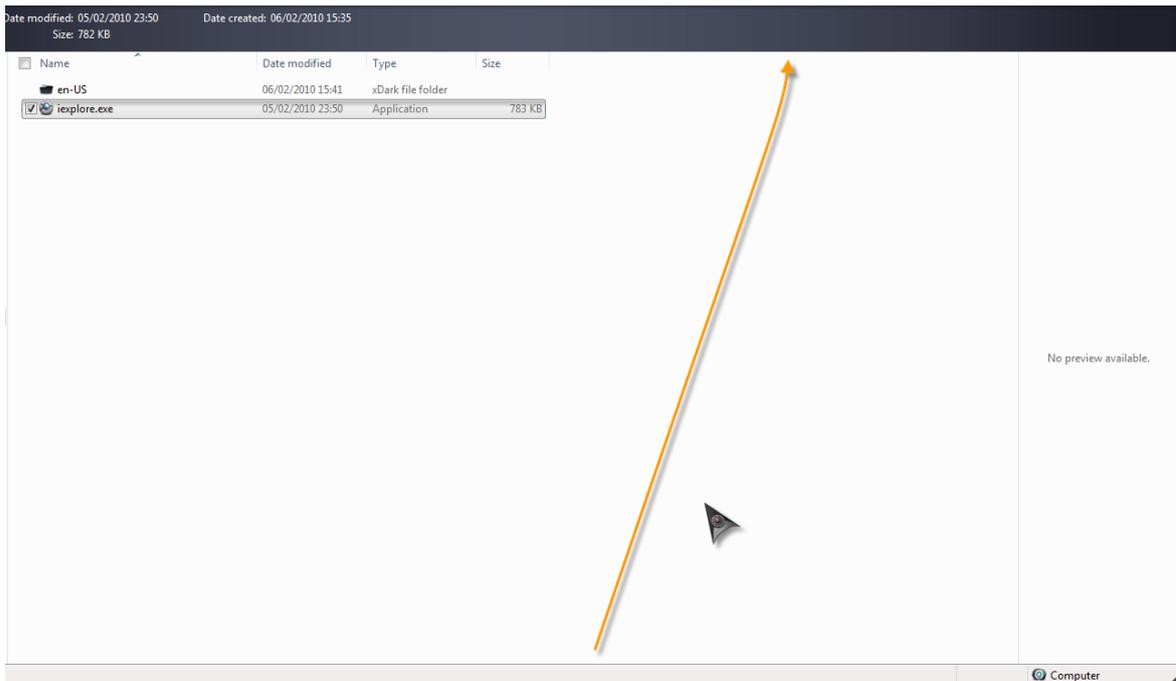
CODE: SELECT ALL

```
program files/internet explorer/iexplore.exe  
program files (x86)/internet explorer/iexplore.exe
```

open it with Restorator 2007, expand the *Icon Entry* folder and replace the Icons for the wants you want to use:



**Changing the Explorer Preview Pane Position:**



Go to:

32bits:

CODE: SELECT ALL

windows/system32/shell32.dll

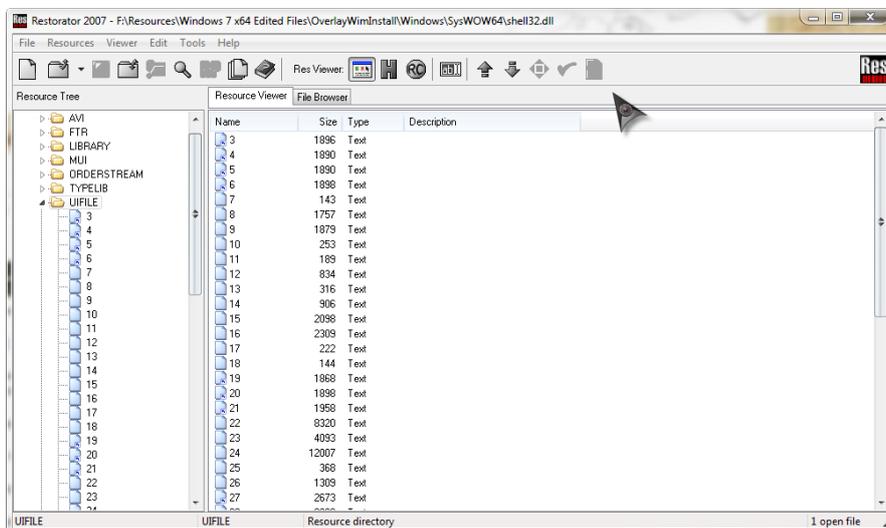
64bits:

CODE: SELECT ALL

windows/system32/shell32.dll

windows/SysWOW64/shell32.dll

open it with Restorator 2007 and expand the UIFILE folder:



search for the text:

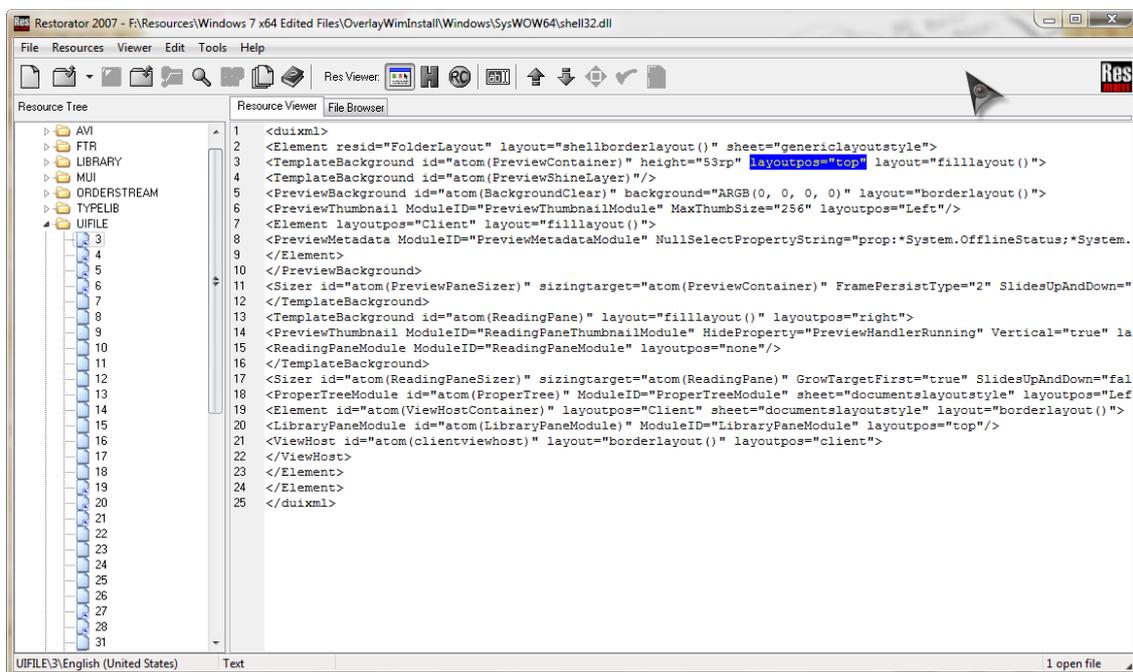
CODE: SELECT ALL

```
layoutpos="bottom"
```

and replace the word "bottom" for "top":

CODE: SELECT ALL

```
layoutpos="top"
```



in the numbers:

CODE: SELECT ALL

```
3, 4, 5, 6, 19, 20, 21, 27 y 28
```

save changes.

here you can download the original system file already modified: *(includes both 32bits and 64bits)*



CODE: SELECT ALL

```
http://www.sk8tr.iblogger.org
```

## Add Effects to the Explorer Preview Pane:

Go to:

32bits:

CODE: SELECT ALL

```
Windows/System32/Explorerframe.dll
```

64bits:

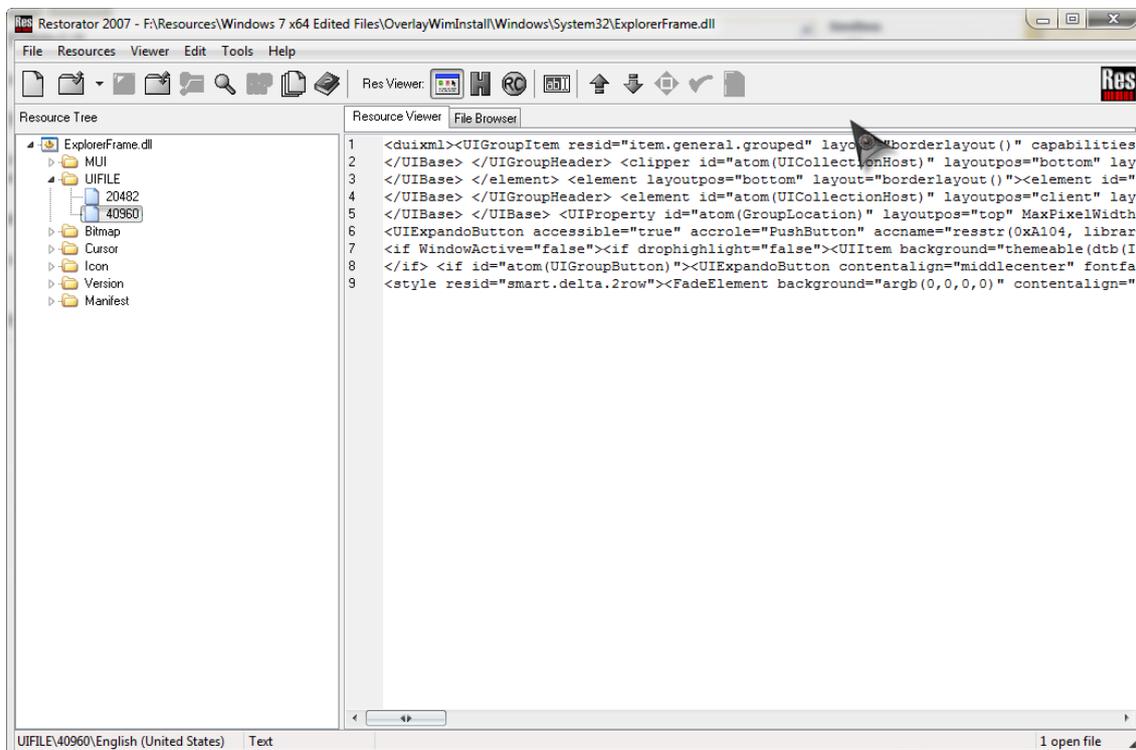
CODE: SELECT ALL

```
Windows/System32/Explorerframe.dll  
Windows/SysWOW64/Explorerframe.dll
```

open it with Restorator 2007 and go to:

CODE: SELECT ALL

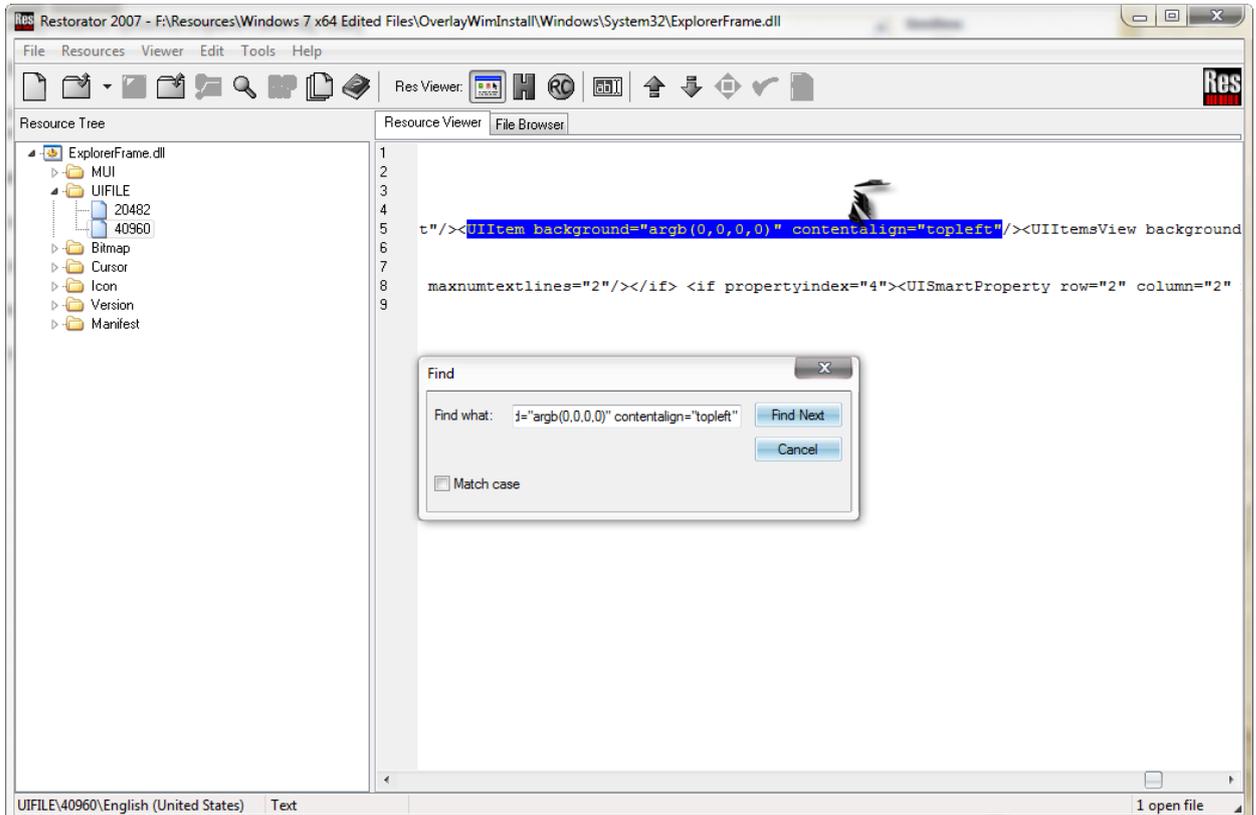
```
UIFILE -> 40960
```



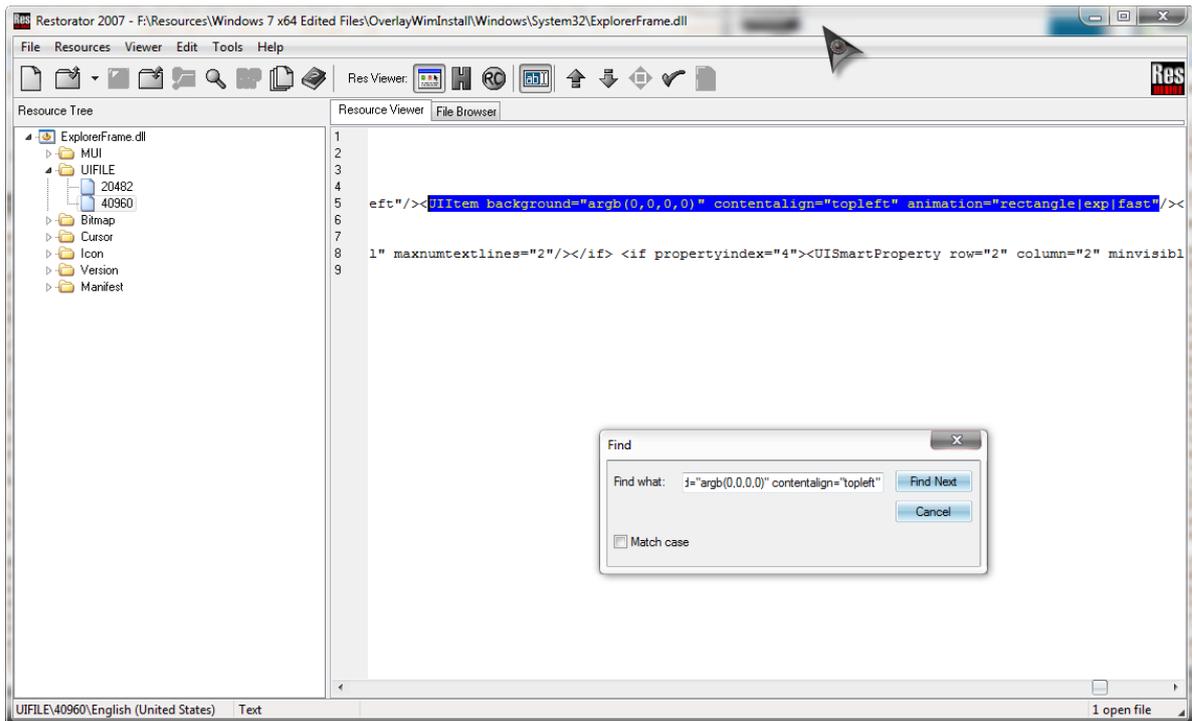
search the following line:

CODE: SELECT ALL

```
UIItem background="argb(0,0,0,0)" contentalign="topleft"
```



and add at the end of it any of these effects:



CODE: SELECT ALL

```
animation="rectangle|exp|fast"
```

CODE: SELECT ALL

```
animation="position|exp|fast"
```

save changes.

### Changing the Windows Media Center Background Image:

Go to:

CODE: SELECT ALL

```
/windows/ehome/ehres.dll
```

open it with Restorator 2007, expand the *RC DATA* folder and change the image:

CODE: SELECT ALL

```
COMMON.ANIMATED.BACKGROUND.PNG (500x300 .PNG)
```



### Changing the Windows Media Player Background Image:

Go to:

*32bits:*

CODE: SELECT ALL

---

```
Windows/System32/wmploc.dll
```

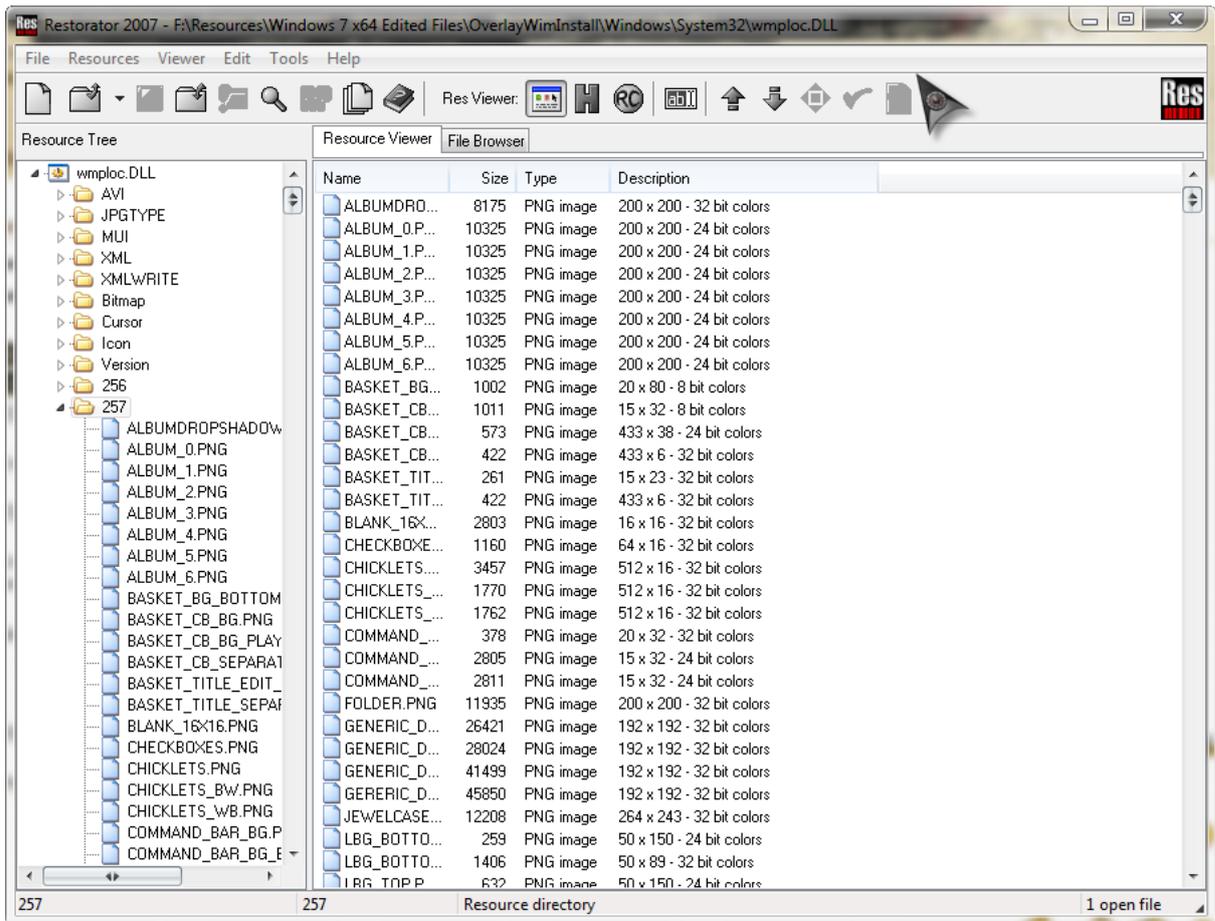
*64bits:*

CODE: SELECT ALL

---

```
Windows/System32/wmploc.dll  
Windows/SysWOW64/wmploc.dll
```

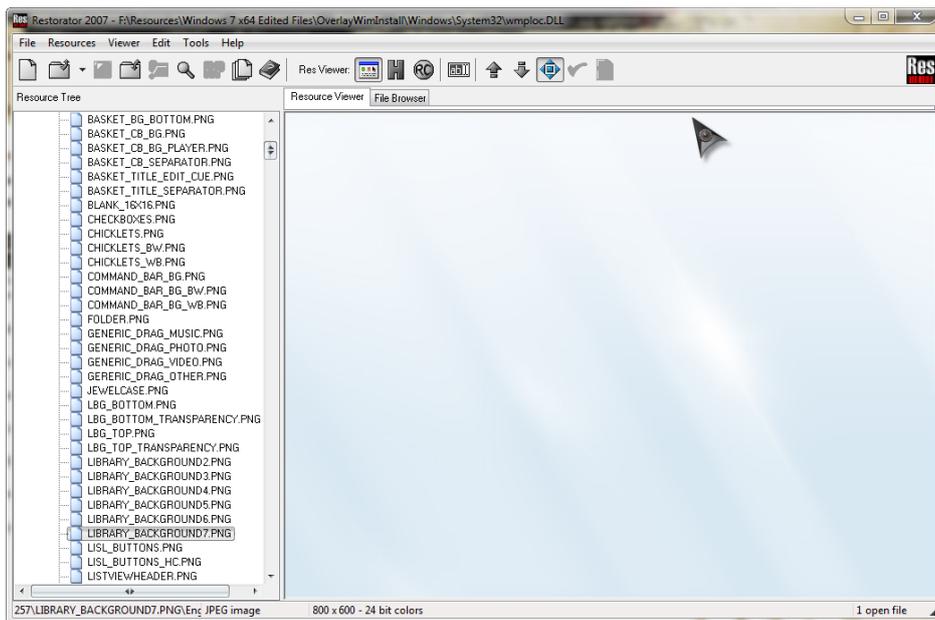
open it with Restorator 2007 and expand the 257 folder:



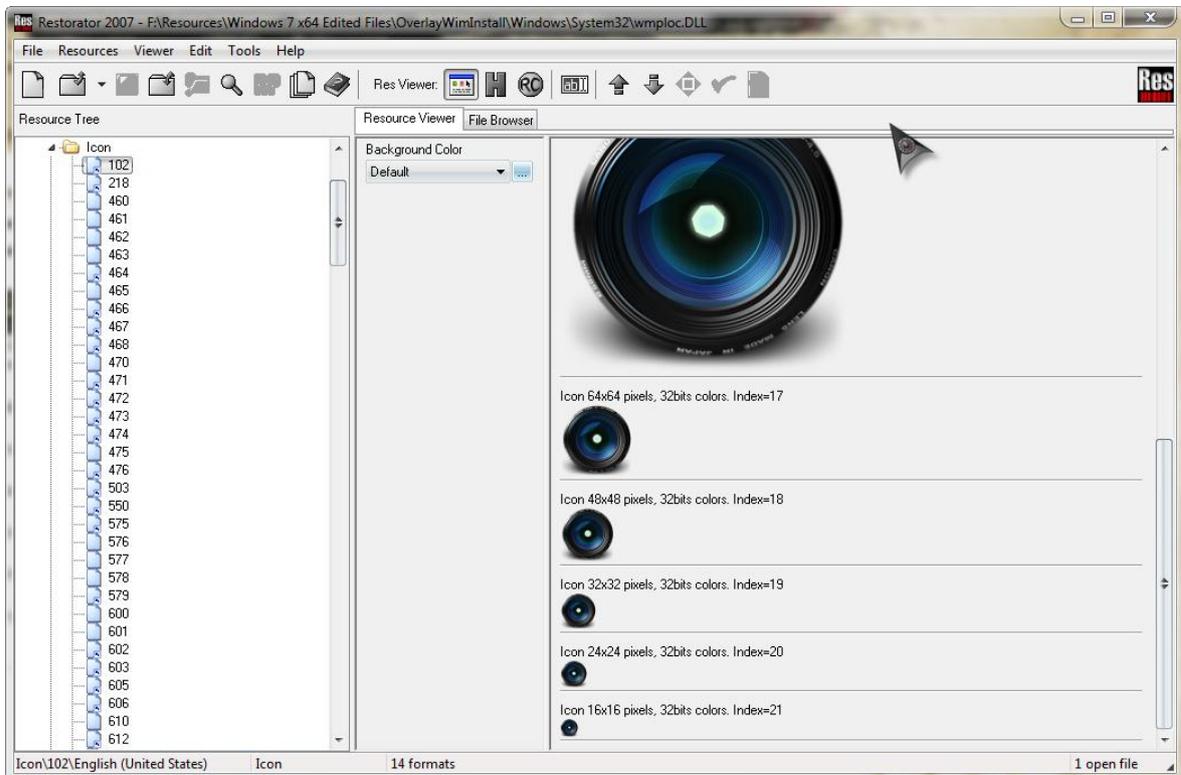
replace the image:

CODE: SELECT ALL

LIBRARY\_BACKGROUND7.PNG



and save changes, if you want to customize even more the Windows Media Player expand the Icon folder:



### Adding Extras to the Desktop:

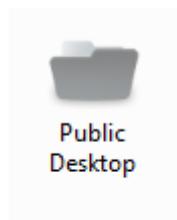
Go to:

**CODE: SELECT ALL**

---

```
Users/Public/Public Desktop/
```

and copy inside the folder anything you want to add to the desktop for when the installation its finished:



## Replacing more System Icons:

*The System files that contain more Icons are:*

CODE: SELECT ALL

---

```
shell32.dll -> Windows Shell Common Dll (306 icons)
imageres.dll -> Windows Image Resource (218 icons)
wmploc.DLL -> Windows Media Player Resources (208 icons)
netshell.dll -> Network Connections Shell (164 icons)
mmcndmgr.dll -> MMC Node Manager DLL (129 icons)
moricons.dll -> Windows NT Setup Icon Resources Library (113 icons)
ieframe.dll -> Internet Browser (105 icons)
compstui.dll -> Common Property Sheet User Interface DLL (101 icons)
DDORes.dll -> Device Category information and resources (81 icons)
pnidui.dll -> Network System Icon (59 icons)
```

Save your changes by unmounting the image:

CODE: SELECT ALL

---

```
imagex /unmount /commit F:\W7\Mount
```

---

## Building Windows 7 Basics Part 5 A - The Registry Tweaks

### De-Mystifying Windows Vista & Windows 7 Registry

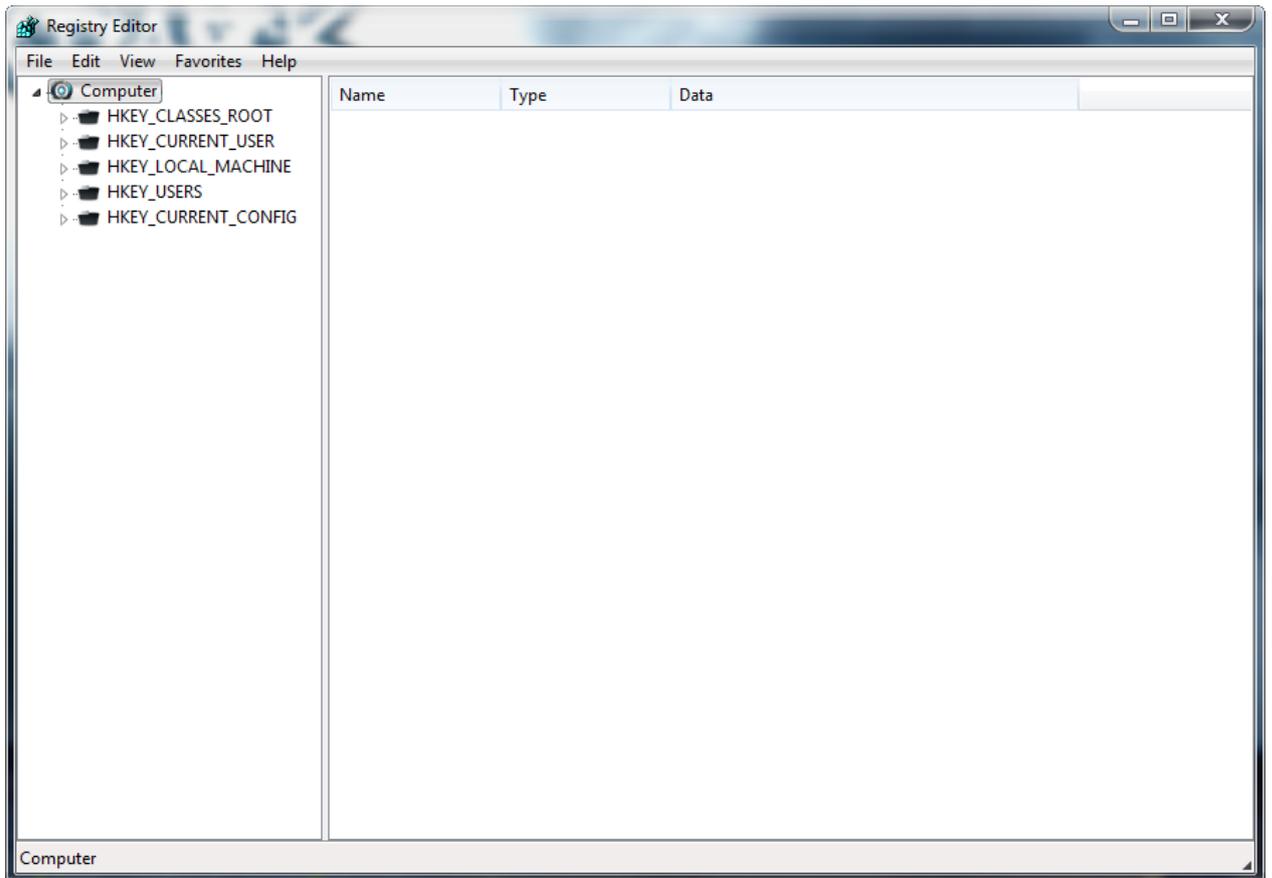
The Windows Registry is a directory which stores settings and options for the operating system for Microsoft Windows. It contains information and settings for all the hardware, operating system software, most non-operating system software, users, preferences of the PC, etc. Whenever a user makes changes to Control Panel settings, file associations, system policies, or most installed software, the changes are reflected and stored in the registry. The registry also provides a window into the operation of the kernel, exposing runtime information such as performance counters and currently active hardware. The Windows registry was introduced to tidy up the profusion of per-program INI files that had previously been used to store configuration settings for Windows programs. These files tended to be scattered all over the system, which made them difficult to track.

*The Registry consists of the following 5 Root Keys:*

CODE: SELECT ALL

---

```
HKEY_CLASSES_ROOT
HKEY_CURRENT_USER
HKEY_LOCAL_MACHINE
HKEY_USERS
HKEY_CURRENT_CONFIG
```



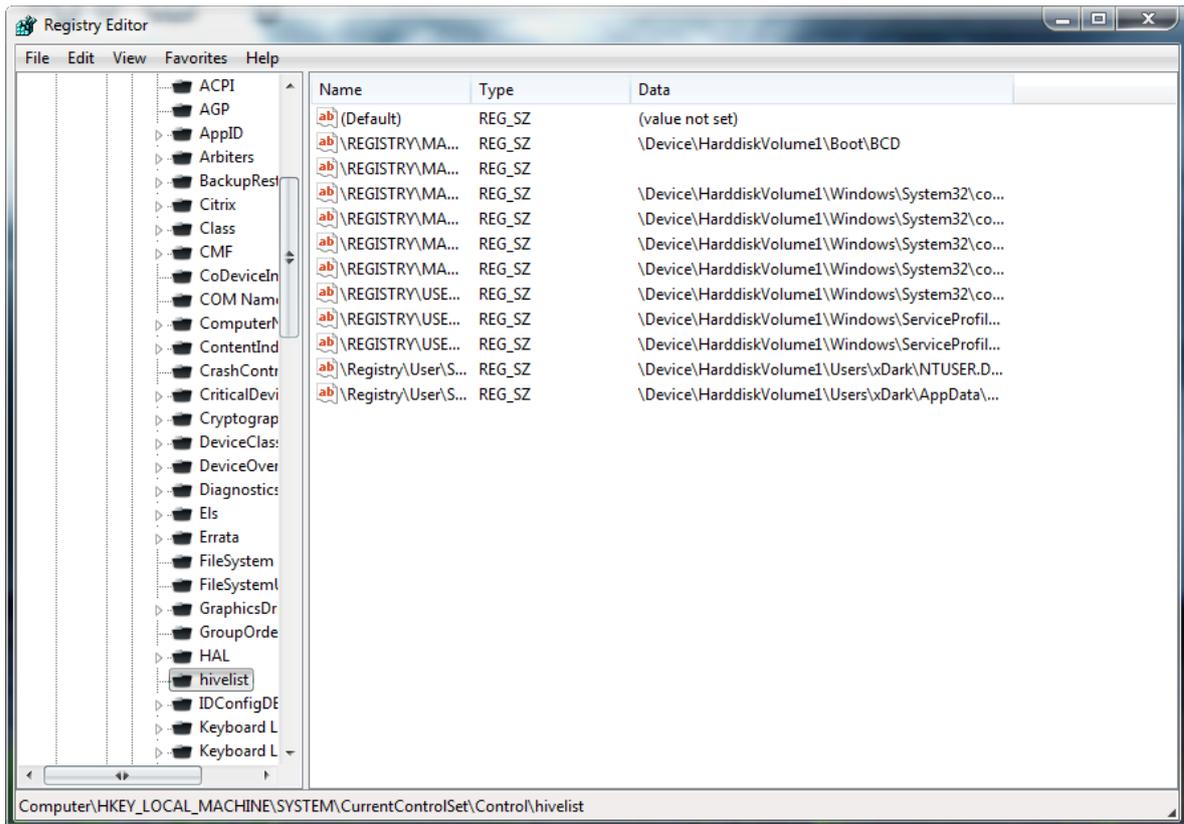
Root Keys contain SubKeys. Subkeys, may contain subkeys of their own too, and contain at least one value, called as its Default Value. A key with all its subkeys and values is called as a Hive.

The Registry is stored on the Disk as several separate Hive files. These Hive files are then read into memory every time Vista starts or when the User logs on. To see where the Hives are physically stored, see:

**CODE: SELECT ALL**

---

```
HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\HiveList
```



The Registry uses the following data types:

**CODE: SELECT ALL**

- REG\_SZ : The SZ indicates zero-terminated string. This is a variable-length string that can contain Unicode as well as ANSI characters.
- REG\_BINARY : It contains binary data. 0's & 1's.
- REG\_DWORD : This data type is a Double Word. It is, a 32-bit numeric value and can hold any number from 0 to 232.
- REG\_QWORD : This data type is a Quadruple Word. It is a 64-bit numeric value.
- REG\_MULTI\_SZ : This data type contains a group of zero-terminated strings assigned to a single value.
- REG\_EXPAND\_SZ : This data type is a zero-terminated string containing an unexpanded reference to an environment variable, like say, %SystemRoot%.

### The Registry Virtualization

In Windows Vista, the Registry has been Virtualized, and hence unlike XP, does not tend to suffer from bloat. The same has been continued in Windows 7.

Virtualization basically means that, applications are prevented from writing to System Folders in Vista or Windows 7's file system and ALSO to the 'machine wide keys' in the registry. However, this does not prevent standard user accounts from installing or running applications.

In Vista/ 7, the UAC utilizes the Registry Virtualization Feature, to redirect attempts to write to subkeys of:

CODE: [SELECT ALL](#)

---

```
HKEY_LOCAL_MACHINE\Software
```

When an application attempts to write to this hive, Vista instead, writes it, to a per-user location,:

CODE: [SELECT ALL](#)

---

```
HKEY_CLASSES_ROOT\VirtualStore\Machine\Software
```

This is done discreetly. No one gets to know that this is happening!

This is, in short Registry Virtualization, and it is a useful Security feature.

Incidentally, mention must also be made of another new technology underlying Vista : The Kernel Transaction Manager, which enables Transactional Registry. This feature enables a sort of a registry rollback. But it's not implemented in Registry Editor. Instead, this feature is designed for use by developers who need to create robust applications using transactional processing.

### Tweaking Windows 7 Services:

Usually tweaks are saved in a .reg file wich is a windows registry file that once clicked it applies automatically the tweaks, you can create or modify these files as you like them. For tweaking the Windows 7 Services we will use a .reg file already created with all the default Windows 7 Ultimate Services entries, we only have to modify the number value as i will explain now:

This section contains files with ONLY the "Start" key and "DelayedAutoStart". For example:

The "Application Experience" service, this information is applied for the "Default" configuration:

CODE: [SELECT ALL](#)

---

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\AeLookupSvc]
"Start"=dword:00000003
```

For the key "Start," the values are:

CODE: [SELECT ALL](#)

---

```
00000001 ~ A system service that loads/starts very early on. Will not be
used here.
00000002 ~ Automatic
```

00000003 ~ Manual  
00000004 ~ Disabled

Also, for the key "DelayedAutoStart," the values are:

CODE: [SELECT ALL](#)

---

00000000 ~ No  
00000001 ~ Yes

These are the default Windows 7 Ultimate x86 / x64 Services Start Key: (*Note: 2 .reg files x86 and x64 each separated and named inside the .rar*)



CODE: [SELECT ALL](#)

---

<http://www.sk8tr.iblogger.org>

Open the x86 or x64 .reg file ( *depending on the Windows 7 Ultimate Version you are going to modify* ) with notepad5++ and tweak the services as explained before:

**NOTE:** Always set the service to **MANUAL**, never disable it, so that whenever Windows needs to start a service it can easily start and use it. If you set any service to **DISABLED**, Windows will not be able to start it and will give some error messages.

```
1 Windows Registry Editor Version 5.00
2 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\AxInstSV]
3 "Start"=dword:00000003
4 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SensrSvc]
5 "Start"=dword:00000003
6 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\AeLookupSvc]
7 "Start"=dword:00000003
8 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\AppIDSvc]
9 "Start"=dword:00000003
10 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Appinfo]
11 "Start"=dword:00000003
12 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ALG]
13 "Start"=dword:00000003
14 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\AppMgmt]
15 "Start"=dword:00000003
16 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\BITS]
17 "Start"=dword:00000003
18 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\BFE]
19 "Start"=dword:00000002
20 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\BDESVC]
21 "Start"=dword:00000002
22 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\wbengine]
23 "Start"=dword:00000003
24 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\bthserv]
25 "Start"=dword:00000003
26 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PeerDistSvc]
27 "Start"=dword:00000003
28 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\CertPropSvc]
29 "Start"=dword:00000003
30 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\KeyIso]
31 "Start"=dword:00000003
32 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\EventSystem]
33 "Start"=dword:00000002
34 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\COMSysApp]
35 "Start"=dword:00000003
36 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Browser]
37 "Start"=dword:00000003
38 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\VaultSvc]
39 "Start"=dword:00000003
40 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\CryptSvc]
41 "Start"=dword:00000002
```

Here is a list of services that can be safely set to **MANUAL**:

**CODE: SELECT ALL**

- Application Experience
- Computer Browser (If your computer is not connected to any network)
- Desktop Window Manager Session Manager (If you don't use Aero theme)
- Diagnostic Policy Service
- Distributed Link Tracking Client
- IP Helper

Offline Files  
Portable Device Enumerator Service  
Print Spooler (If you don't have Printer)  
Protected Storage  
Remote Registry (Always disable it for Security purposes)  
Secondary Logon  
Security Center  
Server (If your computer is not connected to any network)  
Tablet PC Input Service  
TCP/IP NetBIOS Helper  
Themes ( If you use Windows Classic theme)  
Windows Error Reporting Service  
Windows Media Center Service Launcher  
Windows Search (If you don't use Windows Search feature frequently)  
Windows Time (If you don't want to update system tray clock time using Internet)

PS: You can see the details of each service to determine whether you should disable it or not.

When you have finished tweaking services in the .reg file save it and name it services.reg, keep it for the next tutorial when we will integrate it in our Windows 7 Build, if you find this method difficult you can also turn services off using vLite, if you prefer vLite for tweaking services just skip this part.

### Tweaking Windows 7 System:

For the Windows 7 System tweaks there are lots of tweaks already done which you can compile and add them all in one .reg file to your Build, also you can take snapshots of the registry system to create your own tweaks using tools like X-SetUp Pro, here is a compilation of Windows 7 Ultimate system tweaks:



CODE: [SELECT ALL](#)

---

<http://www.sk8tr.iblogger.org>

Open the file with Notepad++ and if you want to add or remove a tweak just delete it or add it in the same file as shown in the screenshot below:

```

184 "SystemFolders"=dword:00000001
185
186
187 ; Do not show 'Help and Support' on Start Menu
188
189 [HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Advanced]
190 "Start_ShowHelp"=dword:00000000
191
192
193
194 ; Do not show "Devices and Printers" on Start Menu
195
196 [HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Advanced]
197 "Start_AdminToolsTemp"=dword:00000000
198 "Start_ShowPrinters"=dword:00000000
199
200
201 ;Unlock the taskbar
202
203 [HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Advanced]
204 "TaskbarSizeMove"=dword:00000001
205
206
207 ;If an Administrator attempts a protected action - Silently Succeed
208
209 [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System]
210 "ConsentPromptBehaviorAdmin"=dword:00000000
211
212
213 ;Show detailed Device settings in device manager
214
215 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Environment]
216 "DEVMGR_SHOW_DETAILS"="1"
217
218 [HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\HideDesktopIcons\NewStartPan
219 "{20D04FE0-3AEA-1069-A2D8-08002B30309D}"=dword:00000000
220
221
222 ;Show all hidden devices in device manager
223
224 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Environment]

```

If the tweak is configured as a silent install we will add it later to our installation. Every tweak usually has an explanation of what it does before the tweak itself, once you have finished selecting the tweaks you want for your build and adding them to your .reg file just save it and keep it together with the services.reg file, we will see in the next step a more detailed part of how to tweak Windows 7.

**Note:** Do not tweak your system randomly and make sure you know what is the function of every tweak you add.

---

## Building Windows 7 Basics Part 5 B - The Registry Tweaks

### A Deeper Look Into Tweaking Windows 7

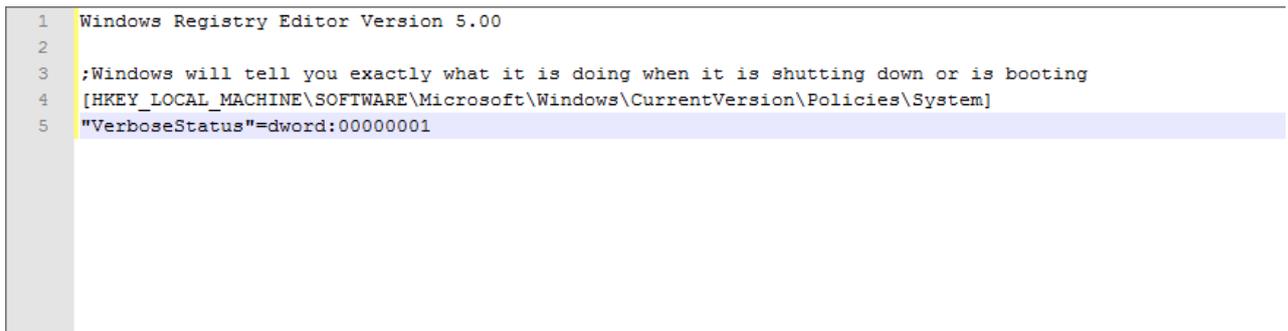
Open a new blank notepad++ file and copy and paste the following text inside:

**CODE: SELECT ALL**

---

```
Windows Registry Editor Version 5.00

;Windows will tell you exactly what it is doing when it is shutting down
or is booting
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System]
"VerboseStatus"=dword:00000001
```



```
1 Windows Registry Editor Version 5.00
2
3 ;Windows will tell you exactly what it is doing when it is shutting down or is booting
4 [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System]
5 "VerboseStatus"=dword:00000001
```

The first line calls for the Windows Registry Editor and its necessary to apply the tweaks, we only need to add this line once at the top of the tweaks file.

The second line calls for the explanation of the tweak, notice its written after -> ; <- :

**CODE: SELECT ALL**

---

```
;Windows will tell you exactly what it is doing when it is shutting down
or is booting
```

now we will add another tweak to the file by copying the following text:

**CODE: SELECT ALL**

---

```
Windows Registry Editor Version 5.00

[HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Advanced]

"DesktopLivePreviewHoverTime"=dword:000003e8
```

```

1 Windows Registry Editor Version 5.00
2
3 ;Windows will tell you exactly what it is doing when it is shutting down or is booting
4 [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System]
5 "VerboseStatus"=dword:00000001
6
7 Windows Registry Editor Version 5.00
8
9 [HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Advanced]
10
11 "DesktopLivePreviewHoverTime"=dword:000003e8

```

here we have once again the Windows Registry Editor in the top of the tweak, as we already wrote it before we dont need it twice so we are going to change the Windows Registry text for the function of the tweak:

**CODE: SELECT ALL**

```

;Adds a default value to Aero Peek

```

```

1 Windows Registry Editor Version 5.00
2
3 ;Windows will tell you exactly what it is doing when it is shutting down or is booting
4 [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System]
5 "VerboseStatus"=dword:00000001
6
7 ;Adds a default value to Aero Peek
8
9 [HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Advanced]
10
11 "DesktopLivePreviewHoverTime"=dword:000003e8

```

add another text:

**CODE: SELECT ALL**

```

;Enable addition Avalon effects

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\explorer]
"MILDesktop"=dword:00000001
"MILExplorer"=dword:00000001

```

```
1 Windows Registry Editor Version 5.00
2
3 ;Windows will tell you exactly what it is doing when it is shutting down or is booting
4
5 [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System]
6 "VerboseStatus"=dword:00000001
7
8 ;Adds a default value to Aero Peek
9
10 [HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Advanced]
11 "DesktopLivePreviewHoverTime"=dword:000003e8
12
13 ;Enable addition Avalon effects
14
15 [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\explorer]
16 "MILDesktop"=dword:00000001
17 "MILExplorer"=dword:00000001
```

this tweak has the info of what it does already so we can proceed compiling tweaks, once we have finished we can save the file as a .reg file.

to save it as a .reg file just type any name you like:

CODE: SELECT ALL

```
tweaks
```

and:

CODE: SELECT ALL

```
.reg
```

at the end of it:

File name: tweaks.reg

Next you will find a compilation of tweaks to practise or to compile them for your Windows 7 Build, remember that there are more registry tweaks in Part A of this tutorial.

CODE: SELECT ALL

```
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```

---

**Building Windows 7 Basics Part 6 - The Integration**

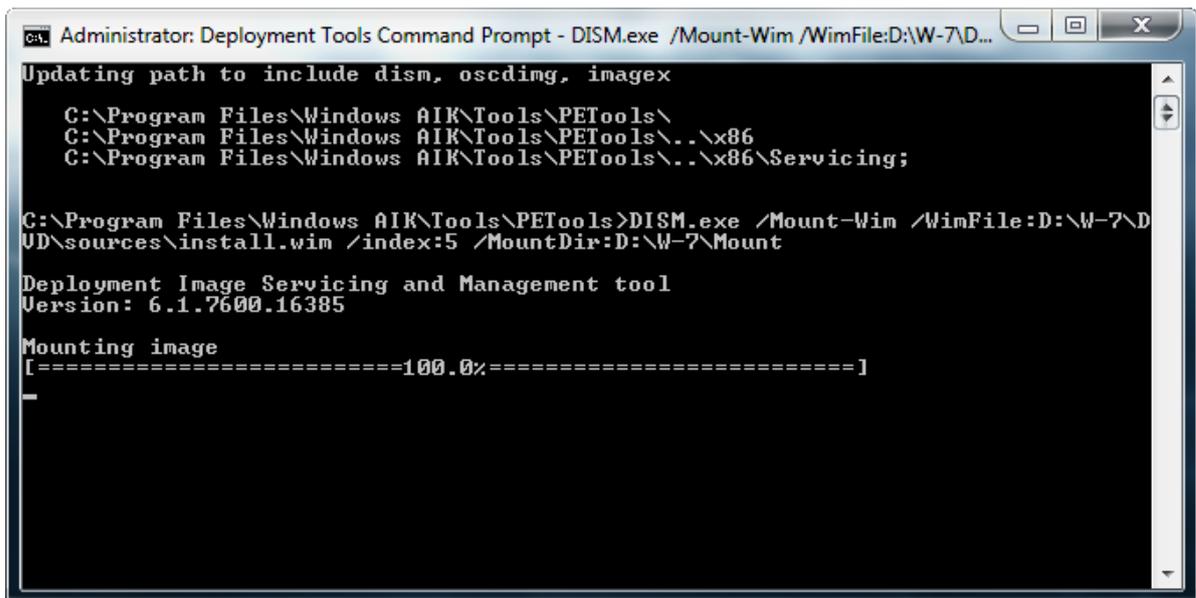
**Windows 7 Integration Using Waik:**

**How To Mount Windows 7 Image Using Dism In WAIK:**

Run *Deployment Tools Command Prompt* as Administrator and use the following Command to mount the Image using Dism:

CODE: SELECT ALL

```
DISM.exe /Mount-Wim /WimFile:D:\W7\DVD\sources\install.wim /index:5  
/MountDir:D:\W7\Mount
```



The screenshot shows a command prompt window titled "Administrator: Deployment Tools Command Prompt - DISM.exe /Mount-Wim /WimFile:D:\W-7\D...". The window content is as follows:

```
Updating path to include dism, oscdimg, imagex  
C:\Program Files\Windows AIK\Tools\PETools\  
C:\Program Files\Windows AIK\Tools\PETools\..\x86  
C:\Program Files\Windows AIK\Tools\PETools\..\x86\Serviceing;  
  
C:\Program Files\Windows AIK\Tools\PETools>DISM.exe /Mount-Wim /WimFile:D:\W-7\DVD\sources\install.wim /index:5 /MountDir:D:\W-7\Mount  
  
Deployment Image Servicing and Management tool  
Version: 6.1.7600.16385  
  
Mounting image  
[=====100.0%=====]  
-
```

The letter "D" is your Hard Disk Drive, "W7" is your Working Folder, "DVD" is the Windows 7 DVD Folder, "5" is the Windows 7 Ultimate Image Number, and "Mount" is the folder where the image is going to be mounted, remember to replace them in case you use different ones.

### How To Integrate Updates Using WAIK:

Create a folder named:

CODE: SELECT ALL

```
System Updates
```

In the Hard Disk Driver letter:

CODE: SELECT ALL

```
D
```

or any spare Drive you have, and move all the updates inside the folder:

Windows6.1-KB123456-v2-x86.msu	04/08/2009 3:31	Microsoft Update ...	317 KB
Windows6.1-KB674101-x86.msu	01/09/2009 23:22	Microsoft Update ...	4.106 KB
Windows6.1-KB674103-x86.msu	31/07/2009 14:06	Microsoft Update ...	5.935 KB
Windows6.1-KB675605-v2-x86.msu	19/08/2009 20:25	Microsoft Update ...	2.692 KB
Windows6.1-KB675606-x86.msu	19/08/2009 20:25	Microsoft Update ...	519 KB
Windows6.1-KB917607-x86.msu	18/10/2009 10:21	Microsoft Update ...	688 KB
Windows6.1-KB925681-x86.msu	08/12/2009 22:00	Microsoft Update ...	203 KB
Windows6.1-KB943790-x86.msu	12/12/2009 23:39	Microsoft Update ...	229 KB
Windows6.1-KB947821-v2-x86.msu	02/10/2009 0:28	Microsoft Update ...	28.171 KB
Windows6.1-KB954664-x86.msu	01/10/2009 23:38	Microsoft Update ...	231 KB
Windows6.1-KB958685-v2-x86.msu	11/12/2009 9:02	Microsoft Update ...	317 KB
Windows6.1-KB970413-v2-x86.msu	02/10/2009 0:24	Microsoft Update ...	727 KB
Windows6.1-KB971601-x86.msu	22/10/2009 0:25	Microsoft Update ...	1.831 KB
Windows6.1-KB972251-x86.msu	09/12/2009 2:50	Microsoft Update ...	346 KB
Windows6.1-KB972270-x86.msu	22/10/2009 0:25	Microsoft Update ...	437 KB
Windows6.1-KB972831-v4-x86.msu	22/10/2009 0:25	Microsoft Update ...	1.413 KB

to Integrate Updates use the following Command:

CODE: SELECT ALL

```
DISM.exe /image:D:\W7\Mount /Add-Package /PackagePath:"D:\System
Updates\Windows6.1-KB974944-x86.msu"
```

The letter "D" is your Hard Disk Drive, "W7" is your Working Folder, "DVD" is the Windows 7 DVD Folder, "Mount" is the folder where the image is mounted, System Updates is the folder we just created for the updates, and Windows6.1-KB974944-x86.msu is the selected update.

Press Enter and the Update will Integrate Automatically:

```
Administrator: Deployment Tools Command Prompt

Deployment Image Servicing and Management tool
Version: 6.1.7600.16385

Image Version: 6.1.7600.16385

Processing 1 of 1 - Adding package D:\System Updates\Windows6.1-KB973874-x86.msu
.msus
[=====100.0%=====]
The operation completed successfully.

C:\Program Files\Windows AIK\Tools\PETools>DISM.exe /image:D:\W-7\Mount /Add-Pac
kage /PackagePath:"D:\System Updates\Windows6.1-KB974332-x86.msu.msu"

Deployment Image Servicing and Management tool
Version: 6.1.7600.16385

Image Version: 6.1.7600.16385

Processing 1 of 1 - Adding package D:\System Updates\Windows6.1-KB974332-x86.msu
.msus
[=====100.0%=====]
The operation completed successfully.

C:\Program Files\Windows AIK\Tools\PETools>
```

To add them all at once use this command:

CODE: SELECT ALL

---

```
DISM.exe /image:D:\W-7\Mount /Add-Package /PackagePath:"D:\System  
Updates\"
```

### How To Disable Features Using WAIK:

First you will have to get a list of all the Features Included in your Windows 7 DVD, use the following Command::

CODE: SELECT ALL

---

```
DISM.exe /Image:D:\W7\Mount /Get-Features
```

and you will get a list of all the Features Included, copy the names of the Features that you want to Disable inside a Notepad:

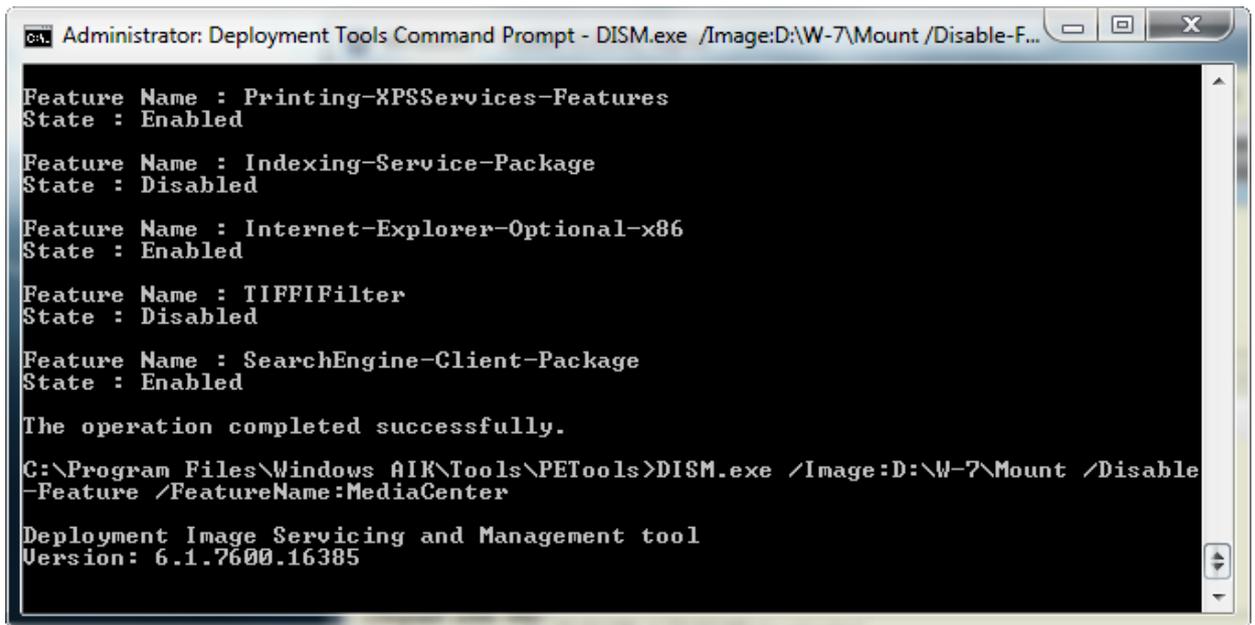
```
Administrator: Deployment Tools Command Prompt
State : Disabled
Feature Name : MSMQ-Multicast
State : Disabled
Feature Name : MSMQ-DCOMProxy
State : Disabled
Feature Name : TabletPCOC
State : Enable Pending
Feature Name : ServicesForNFS-ClientOnly
State : Disabled
Feature Name : ClientForNFS-Infrastructure
State : Disabled
Feature Name : NFS-Administration
State : Disabled
Feature Name : SUA
State : Disabled
Feature Name : Printing-Foundation-Features
State : Enabled
Feature Name : Printing-Foundation-LPRPortMonitor
State : Disabled
Feature Name : Printing-Foundation-LPDPrintService
State : Disabled
Feature Name : Printing-Foundation-InternetPrinting-Client
State : Enable Pending
Feature Name : FaxServicesClientPackage
State : Enable Pending
Feature Name : ScanManagementConsole
State : Disabled
Feature Name : Xps-Foundation-Xps-Viewer
State : Enabled
Feature Name : TFTP
State : Disabled
Feature Name : MSRDC-Infrastructure
State : Enabled
Feature Name : Printing-XPSServices-Features
State : Enabled
Feature Name : Indexing-Service-Package
State : Disabled
Feature Name : Internet-Explorer-Optional-x86
State : Enabled
Feature Name : TIFFIFilter
State : Disabled
Feature Name : SearchEngine-Client-Package
State : Enabled
The operation completed successfully.
C:\Program Files\Windows AIK\Tools\PETools>
```

to Disable a Feature use the following Command:

CODE: SELECT ALL

```
DISM.exe /Image:D:\W7\Mount /Disable-Feature /FeatureName:MediaCenter
```

and replace *MediaCenter* for the Feature name that you want to Disable:



```
Administrator: Deployment Tools Command Prompt - DISM.exe /Image:D:\W-7\Mount /Disable-F...
Feature Name : Printing-XPSServices-Features
State : Enabled

Feature Name : Indexing-Service-Package
State : Disabled

Feature Name : Internet-Explorer-Optional-x86
State : Enabled

Feature Name : TIFFIFilter
State : Disabled

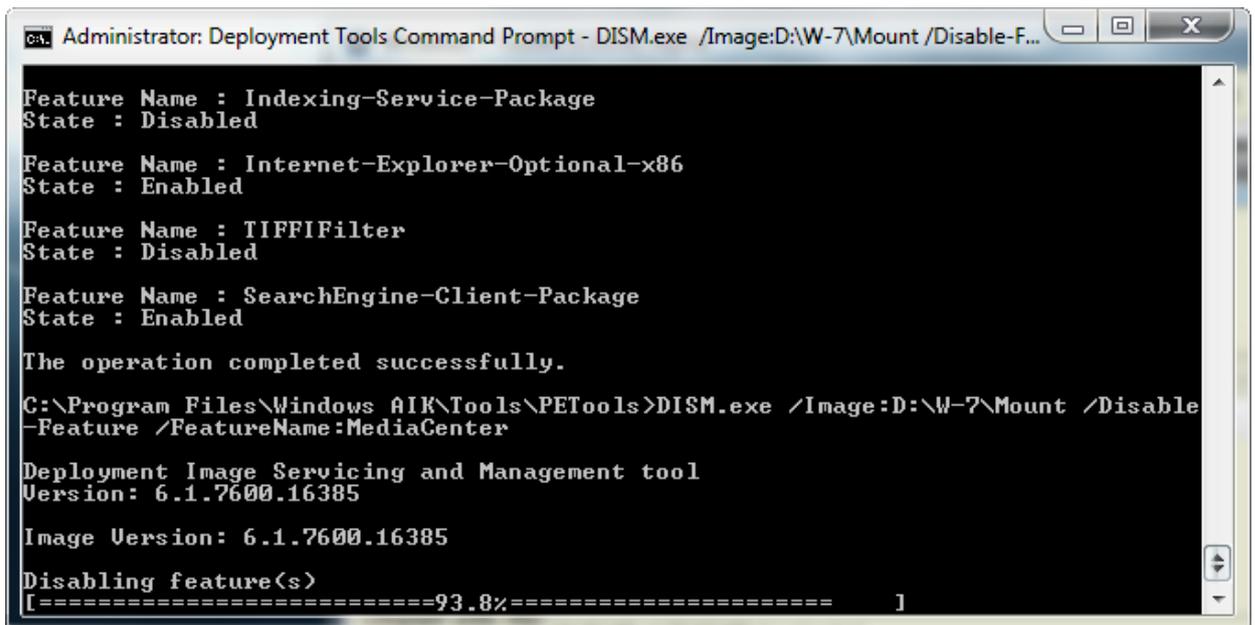
Feature Name : SearchEngine-Client-Package
State : Enabled

The operation completed successfully.

C:\Program Files\Windows AIK\Tools\PETools>DISM.exe /Image:D:\W-7\Mount /Disable-Feature /FeatureName:MediaCenter

Deployment Image Servicing and Management tool
Version: 6.1.7600.16385
```

The Feature will be Disabled Automatically:



```
Administrator: Deployment Tools Command Prompt - DISM.exe /Image:D:\W-7\Mount /Disable-F...
Feature Name : Indexing-Service-Package
State : Disabled

Feature Name : Internet-Explorer-Optional-x86
State : Enabled

Feature Name : TIFFIFilter
State : Disabled

Feature Name : SearchEngine-Client-Package
State : Enabled

The operation completed successfully.

C:\Program Files\Windows AIK\Tools\PETools>DISM.exe /Image:D:\W-7\Mount /Disable-Feature /FeatureName:MediaCenter

Deployment Image Servicing and Management tool
Version: 6.1.7600.16385

Image Version: 6.1.7600.16385

Disabling feature(s)
[=====93.8%===== ]
```

```
Administrator: Deployment Tools Command Prompt
Feature Name : Internet-Explorer-Optional-x86
State : Enabled

Feature Name : TIFFIFilter
State : Disabled

Feature Name : SearchEngine-Client-Package
State : Enabled

The operation completed successfully.

C:\Program Files\Windows AIK\Tools\PETools>DISM.exe /Image:D:\W-7\Mount /Disable
-Feature /FeatureName:MediaCenter

Deployment Image Servicing and Management tool
Version: 6.1.7600.16385

Image Version: 6.1.7600.16385

Disabling feature(s)
[=====100.0%=====]
The operation completed successfully.

C:\Program Files\Windows AIK\Tools\PETools>
```

### How To Integrate Drivers Using WAIK:

To Integrate Drivers create a folder named:

CODE: SELECT ALL

Driver

In your Hard Disk Drive::

CODE: SELECT ALL

D

or any spare Drive you have and copy all the Drivers inside the folder:

	a3d.dll	20/08/2003 1:36	Application extens...	64 KB
	aeaudio.sys	05/03/2005 1:53	System file	125 KB
	drmk.sys	02/11/2006 10:20	System file	127 KB
	oem6.inf	25/07/2007 20:23	Setup Information	79 KB
	portcls.sys	02/11/2006 9:55	System file	164 KB
	senfilt.sys	01/03/2005 18:01	System file	384 KB
	smwdm.sys	28/03/2005 16:19	System file	216 KB
	wdmaudio.inf	02/11/2006 11:25	Setup Information	9 KB

use the following Commands to add them:

*Add a Single Driver:*

CODE: SELECT ALL

---

```
DISM.exe /IMAGE:D:\W7\Mount /ADD-DRIVER /DRIVER:D:\driver\
```

*Add Several Drivers:*

CODE: SELECT ALL

---

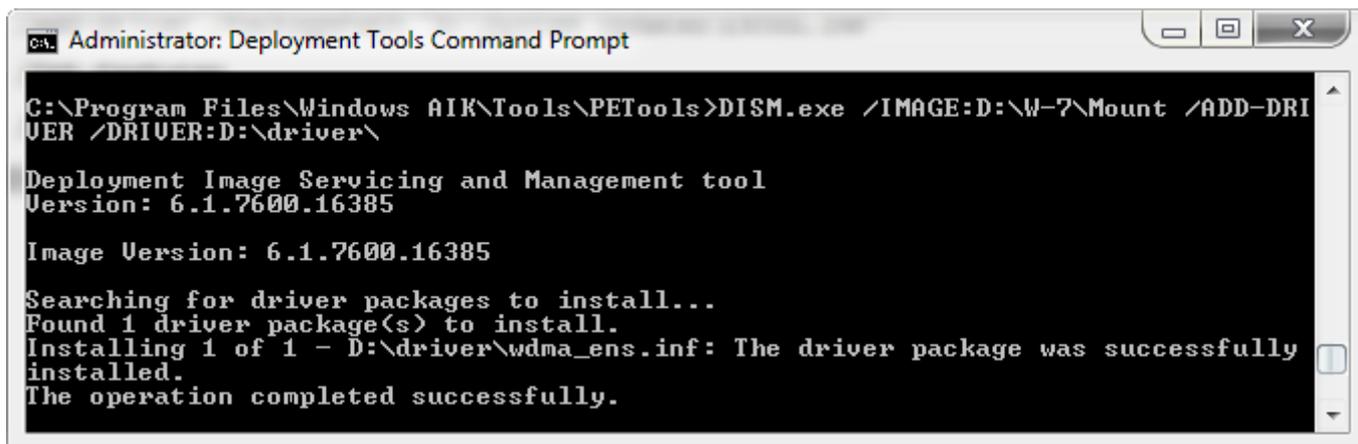
```
DISM.exe /IMAGE:D:\W7\Mount /ADD-DRIVER /DRIVER:D:\driver\ /RECURSE
```

*Add Unsigned Drivers:*

CODE: SELECT ALL

---

```
DISM.exe /IMAGE:D:\W7\Mount /ADD-DRIVER /DRIVER:D:\driver\  
/FORCEUNSIGNED
```



The screenshot shows a command prompt window titled "Administrator: Deployment Tools Command Prompt". The command entered is `DISM.exe /IMAGE:D:\W-7\Mount /ADD-DRIVER /DRIVER:D:\driver\`. The output shows the tool version (6.1.7600.16385), the image version (6.1.7600.16385), and the successful installation of a driver package named `wdma_ens.inf`.

```
C:\Program Files\Windows AIK\Tools\PETools>DISM.exe /IMAGE:D:\W-7\Mount /ADD-DRIVER /DRIVER:D:\driver\  
Deployment Image Servicing and Management tool  
Version: 6.1.7600.16385  
  
Image Version: 6.1.7600.16385  
  
Searching for driver packages to install...  
Found 1 driver package(s) to install.  
Installing 1 of 1 - D:\driver\wdma_ens.inf: The driver package was successfully  
installed.  
The operation completed successfully.
```

### How To UnMount Windows 7 Image Using Dism In WAIK:

To unmount use the following Command:

CODE: SELECT ALL

---

```
DISM.exe /Unmount-Wim /MountDir:D:\W7\Mount /commit
```

```
Administrator: Deployment Tools Command Prompt
C:\Program Files\Windows AIK\Tools\PETools>DISM.exe /Unmount-Wim /MountDir:D:\W-7\Mount /commit

Deployment Image Servicing and Management tool
Version: 6.1.7600.16385

Image File : D:\W-7\DVD\sources\install.wim
Image Index : 5
Saving image
[=====100.0%=====]
Unmounting image
[=====100.0%=====]
The operation completed successfully.

C:\Program Files\Windows AIK\Tools\PETools>
```

The letter "D" is your Hard Disk Drive, "W7" is your Working Folder, and "Mount" is the folder where the image is mounted, remember to replace them in case you use different ones.

#### Extended Guide:

CODE: [SELECT ALL](#)

---

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### Integrating Our Tweaks, Silent Installs or AddOns:

Now we will move all the silent installs and AddOns that we are going to include to this directory:

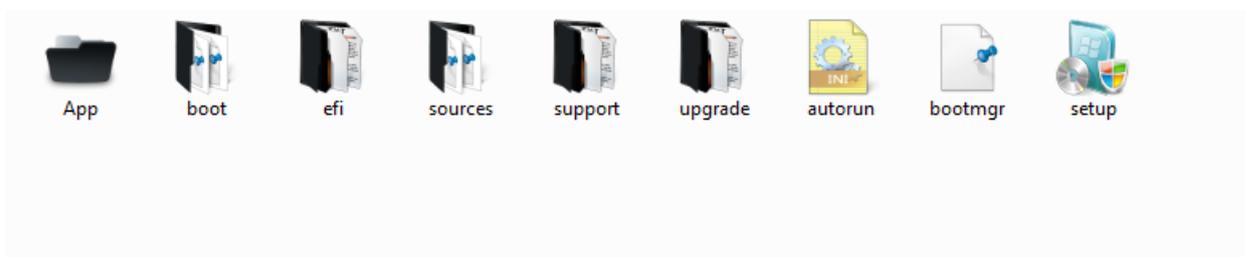
CODE: [SELECT ALL](#)

---

```
F:\W7\DVD\Apps
```

**Note:** "F" is your drive letter and "W7" your working directory, "Apps" is the new directory we are going to create for placing the silent installs and updates.

the DVD directory should look like this:



and for the tweaks we will create the following directory:

CODE: [SELECT ALL](#)

---

```
F:\W7\DVD\SOURCES\%OEM%\$$\SETUP\SCRIPTS
```

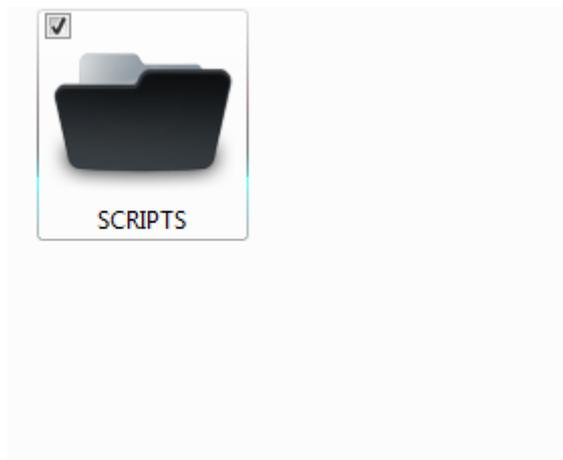
**Note:** "F" is your drive letter and "W7" your working directory, the *SOURCES* folder is already created, we will have to add the directory path inside the *SOURCES* folder:

**CODE:** SELECT ALL

```
/ $OEM$/ $$ / SETUP / SCRIPTS
```



move your *services.reg* and *tweaks.reg* files inside the Scripts directory you just created:



Open Notepad5++ and copy these text inside:

**CODE:** SELECT ALL

```
regedit /s %systemroot%\setup\scripts\tweaks.reg
regedit /s %systemroot%\setup\scripts\services.reg

@echo off
FOR %%i IN (D E F G H I J K L M N O P Q R S T U V W X Y Z) DO IF EXIST
%%i:\sources\install.wim SET CDROM=%%i:
start/wait %CDROM%\Apps\your application.exe
.
.
```

```
.  
Exit or shutdown /r
```

The 2 first lines will execute automatically the 2 *.reg* tweaks files we already did and saved in the scripts folder, if we did only 1 *.reg* file or we are not going to include any we can remove a line or add more lines for the *.reg* tweaks as we like, with the same path and the correct *.reg* file name.

The next part will install our silent installs or addons that we have placed in the *DVD/Apps* folder, just change "*your application.exe*" for the name of the install package and add more lines as you wish to add more software to your Windows 7 Build. Make sure that you are adding silent installs.

Once you have finishing adding the tweaks, applications and updates save this file as *SETUPCOMPLETE.CMD*

**Note:** -> *CMD* its the file extension, save it in the same folder that you have saved the tweaks:

CODE: SELECT ALL

---

```
F:/W7/DVD/SOURCES/$OEM$/$$/SETUP/SCRIPTS
```

Now we are almost finished doing our Windows 7 Build.

---

## Windows 7 Basics Part 7 A - The Final Step

### Creating The Unattended Setup:

In the first vLite window, click on the browse button to select your Windows 7 extracted folder, should be:

CODE: SELECT ALL

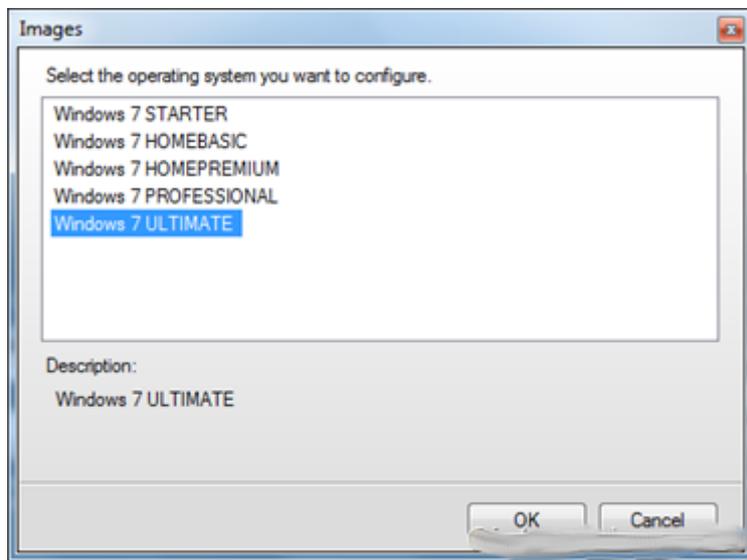
---

```
F:/W7/DVD
```

Click Next button to continue:

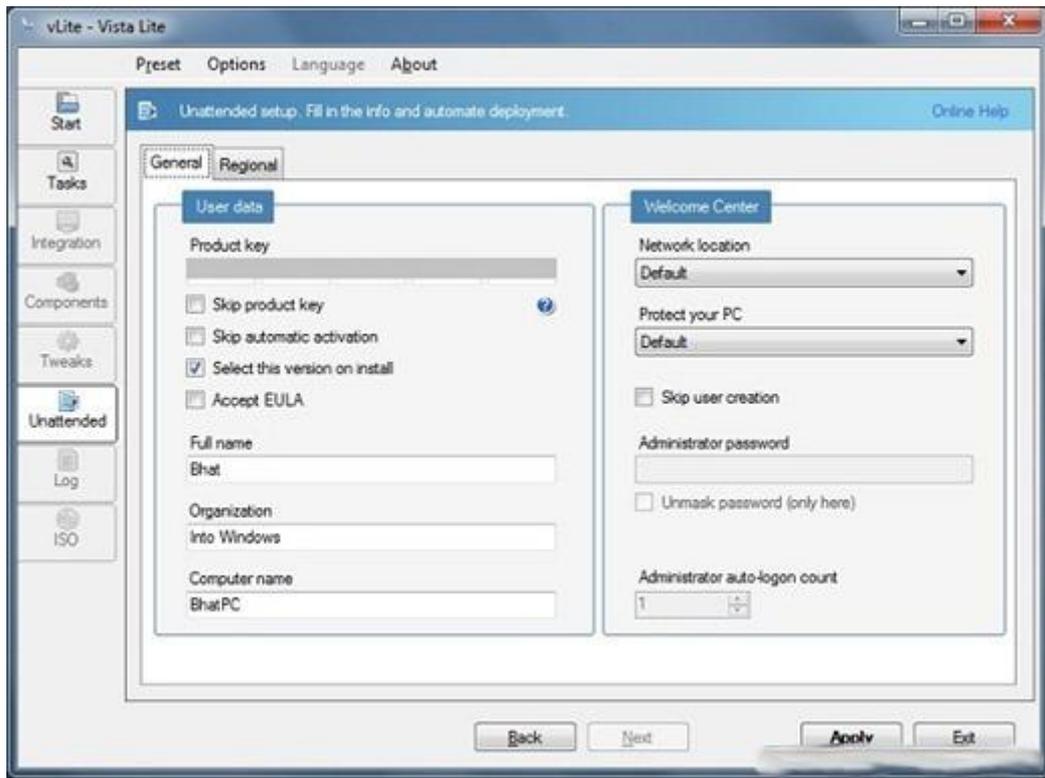


Next, you need to select your edition:

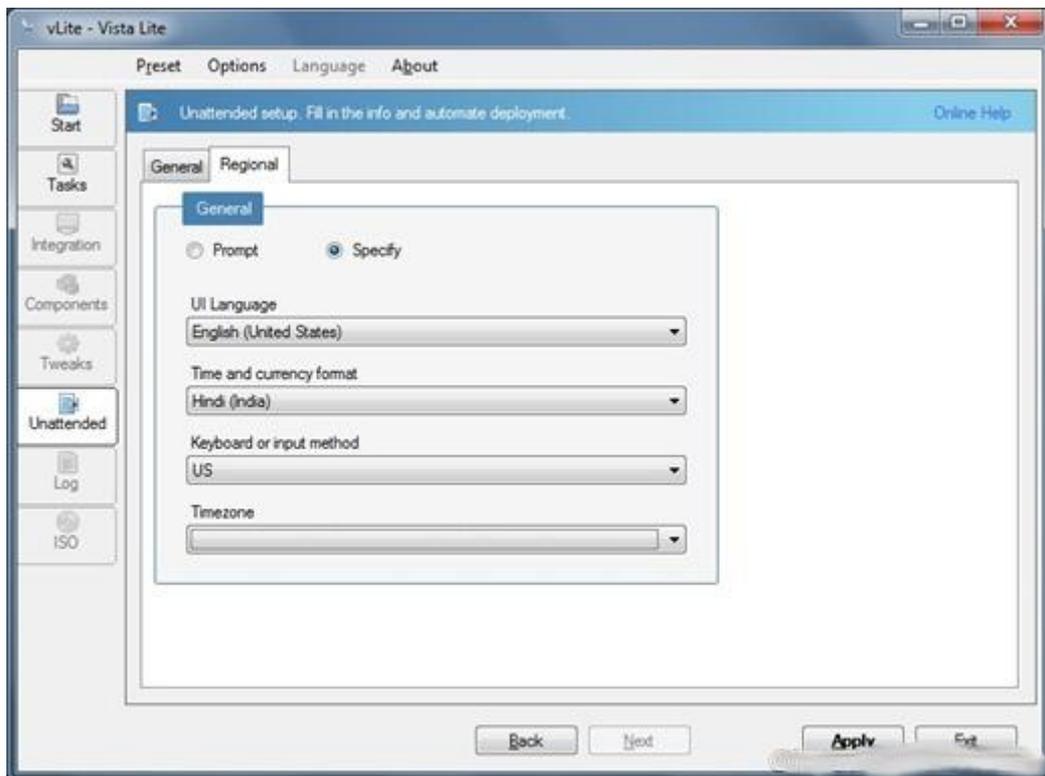


Select the unattended option, you can also remove components and tweak services but we will only focus in creating the unattended ISO as vLite its very easy to use, for removing components or tweaking services just click on the option and the components or services you want to remove or disable, but be careful cause vLite was designed for Windows Vista and some options don't work in Windows 7, the ones i explain here are fully working for Windows 7.

I suggest you to enable following options: (If you don't have a key don't click on the -> skip key box)

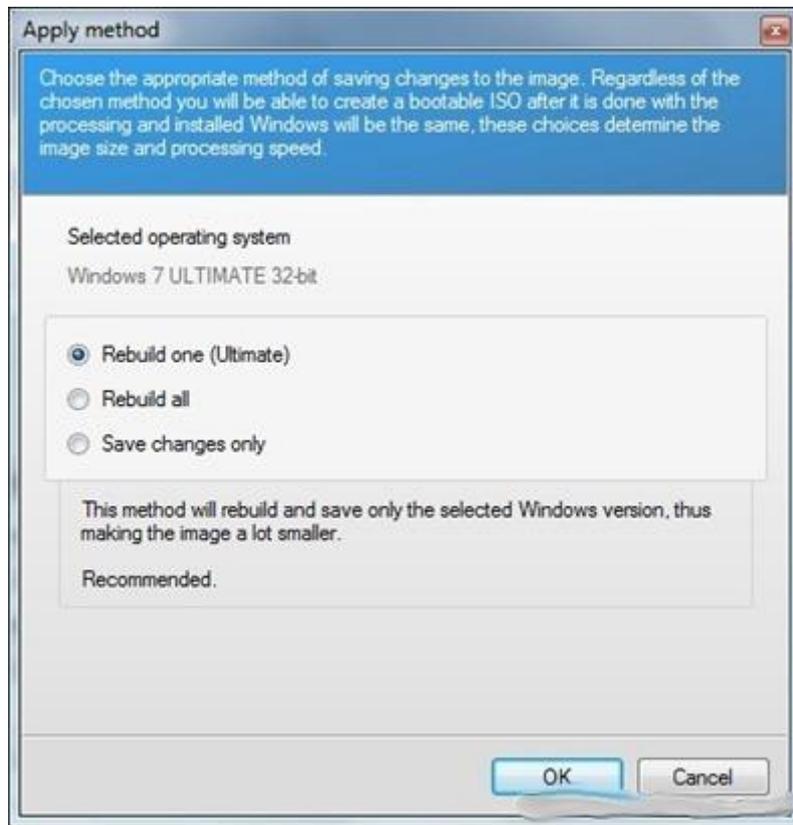


- \* Select this version on install
- \* Accept EULA (End User License Agreement)

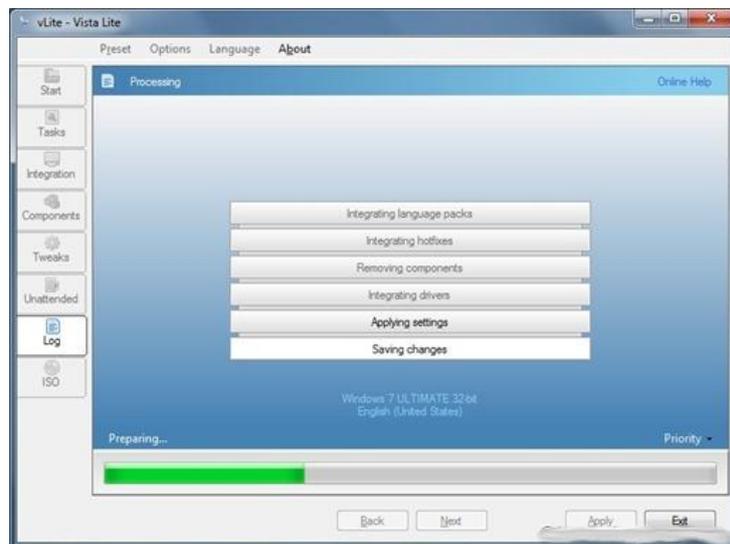


You can also preselect your UI language, time and currency format, keyboard or input method in the Regional tab.

Once you enable all required options click Apply button, choose the apply method as Rebuild one and click ok button to proceed to the next step.



Rebuilding image process will start, and the process may take some time.



You are almost done!

## Creating The Bootable ISO

Open Deployment Tools Command Prompt as administrator and type:

*For x86 ISO*

CODE: SELECT ALL

---

```
cd..
cd PETools
oscdimg -n -m -b"%Programfiles%\Windows
AIK\Tools\PETools\x86\boot\etfsboot.com" F:\W7\DVD F:\W7\ISO\W7x86.iso
```

*For x64 ISO:*

CODE: SELECT ALL

---

```
cd..
cd PETools
oscdimg -n -m -b"%Programfiles%\Windows
AIK\Tools\PETools\amd64\boot\etfsboot.com" F:\W7\DVD F:\W7\ISO\W7x64.iso
```

**Note:** "F" is your drive letter and "W7" your working directory.

When the image has been created it will be saved as an ISO in your folder:

CODE: SELECT ALL

---

```
F:/W7/ISO
```

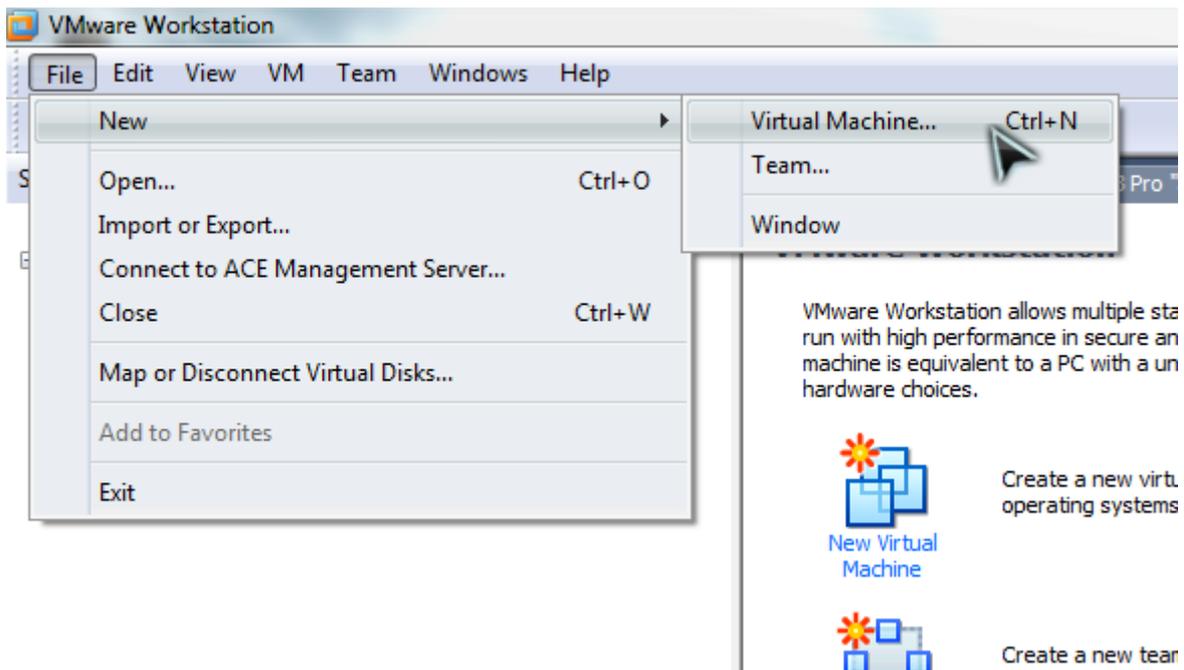
Ready to Burn and install, you may test it first in VMware or Virtual Box.

---

## Building Windows 7 Basics Part 7 B - The Final Step

### Testing the ISO in VMware 7:

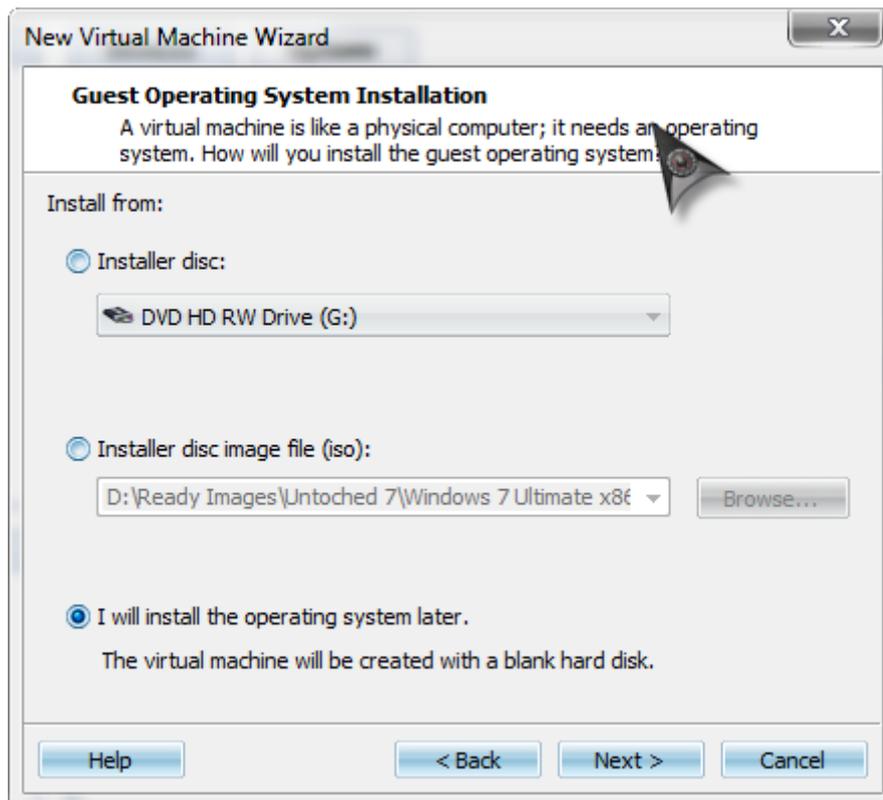
Run VMware 7 and click on File -> New -> Virtual Machine:



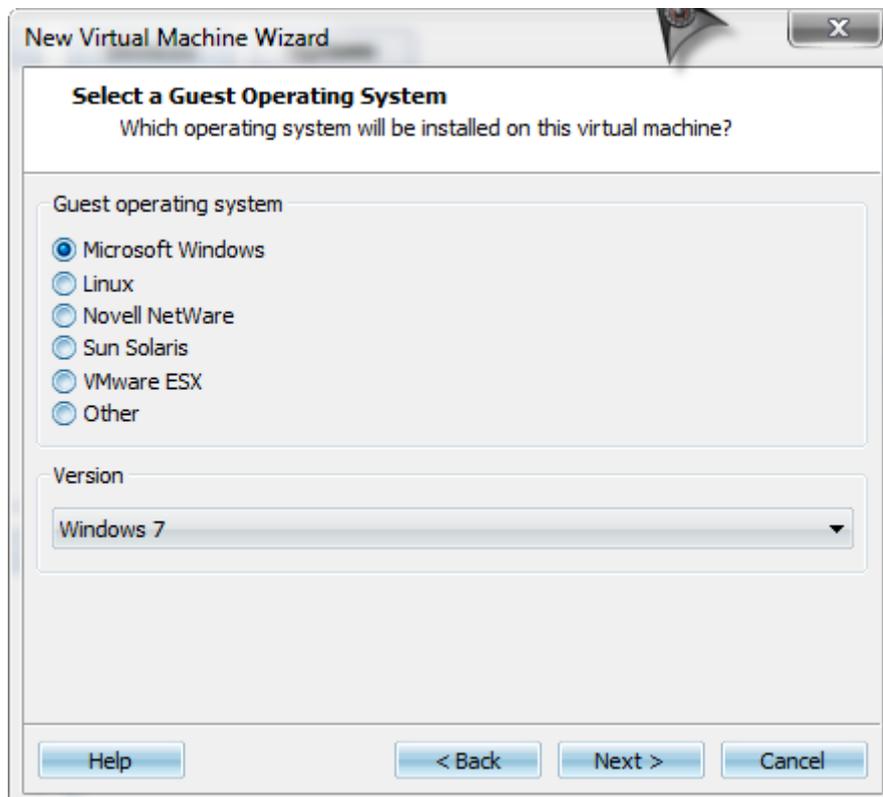
select Typical and Next:



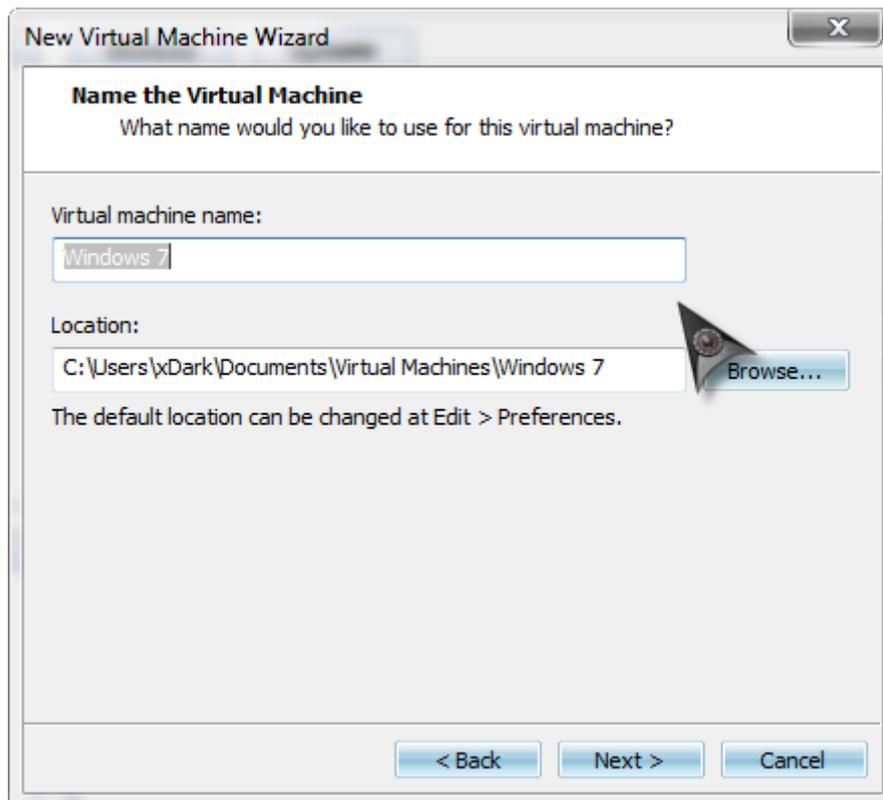
select I will install the operating system later:



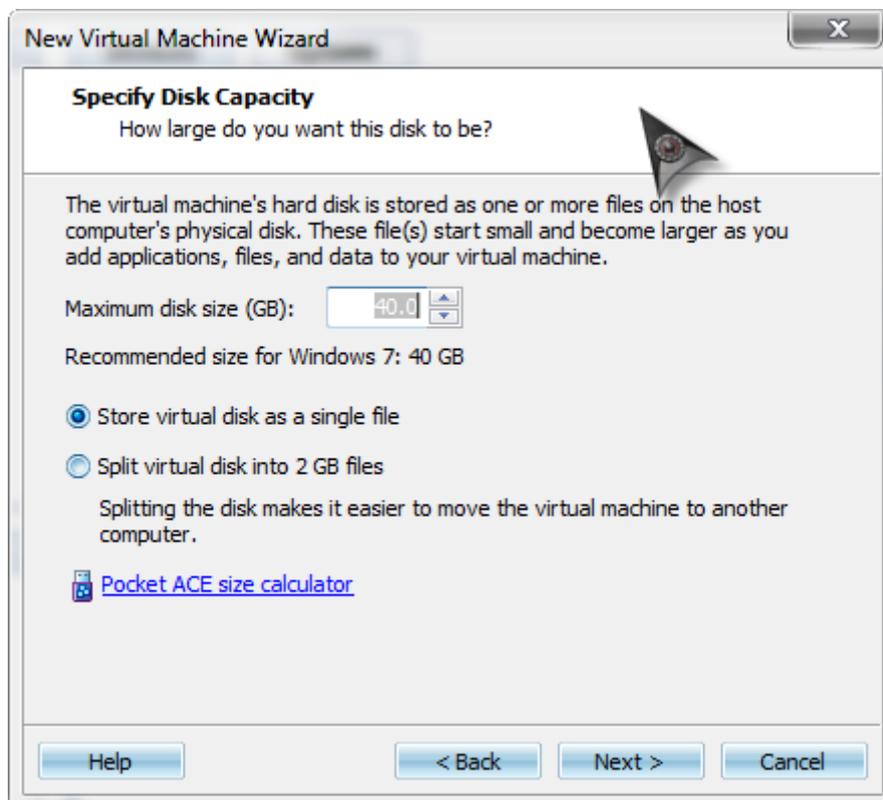
Windows 7:



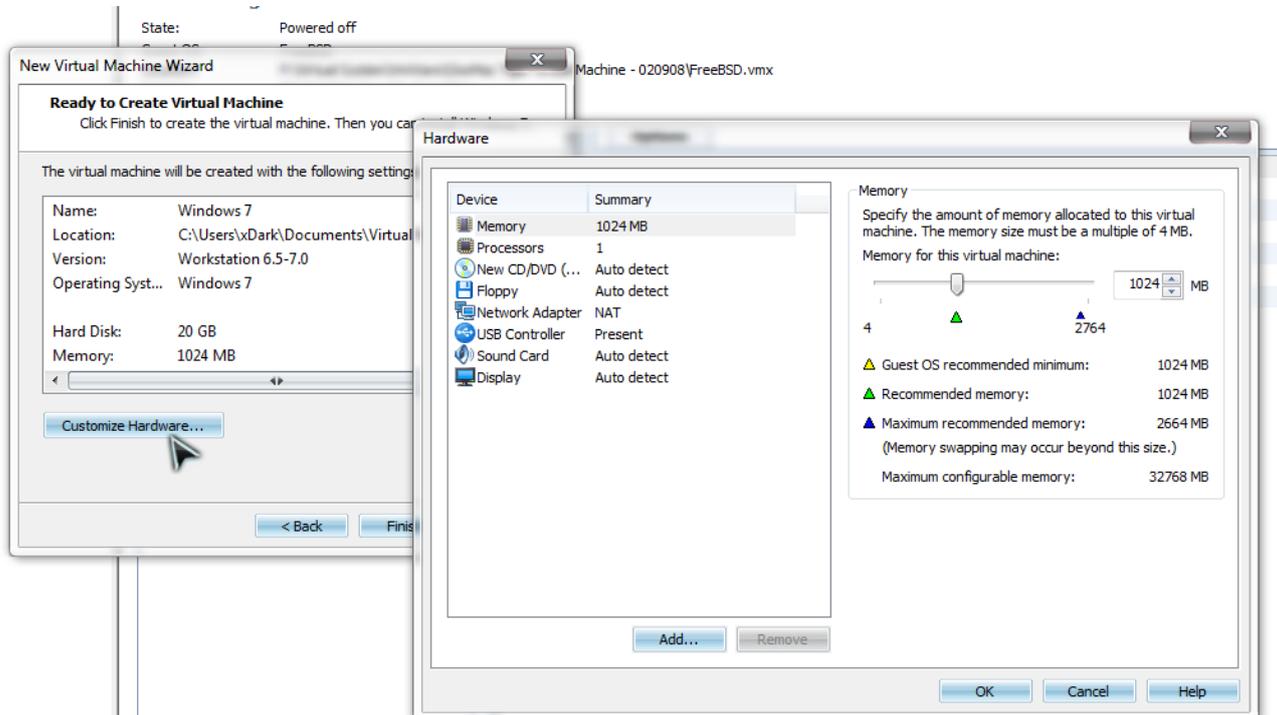
name your Virtual Machine and browse where you want to save it:



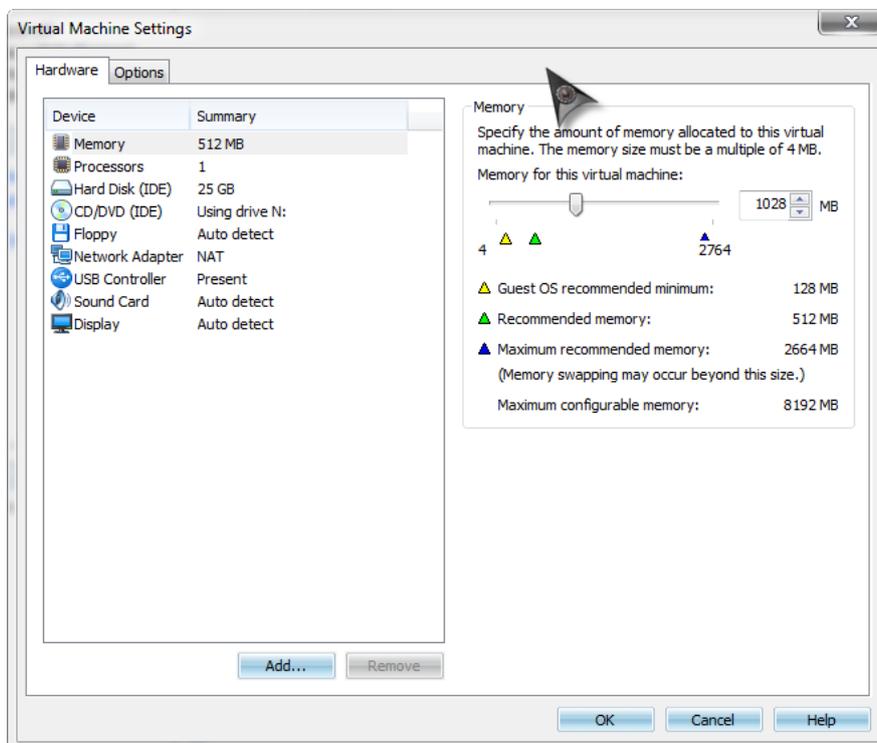
select the size of the Virtual Disk and if you want it to be stored in a single file or splitted file:



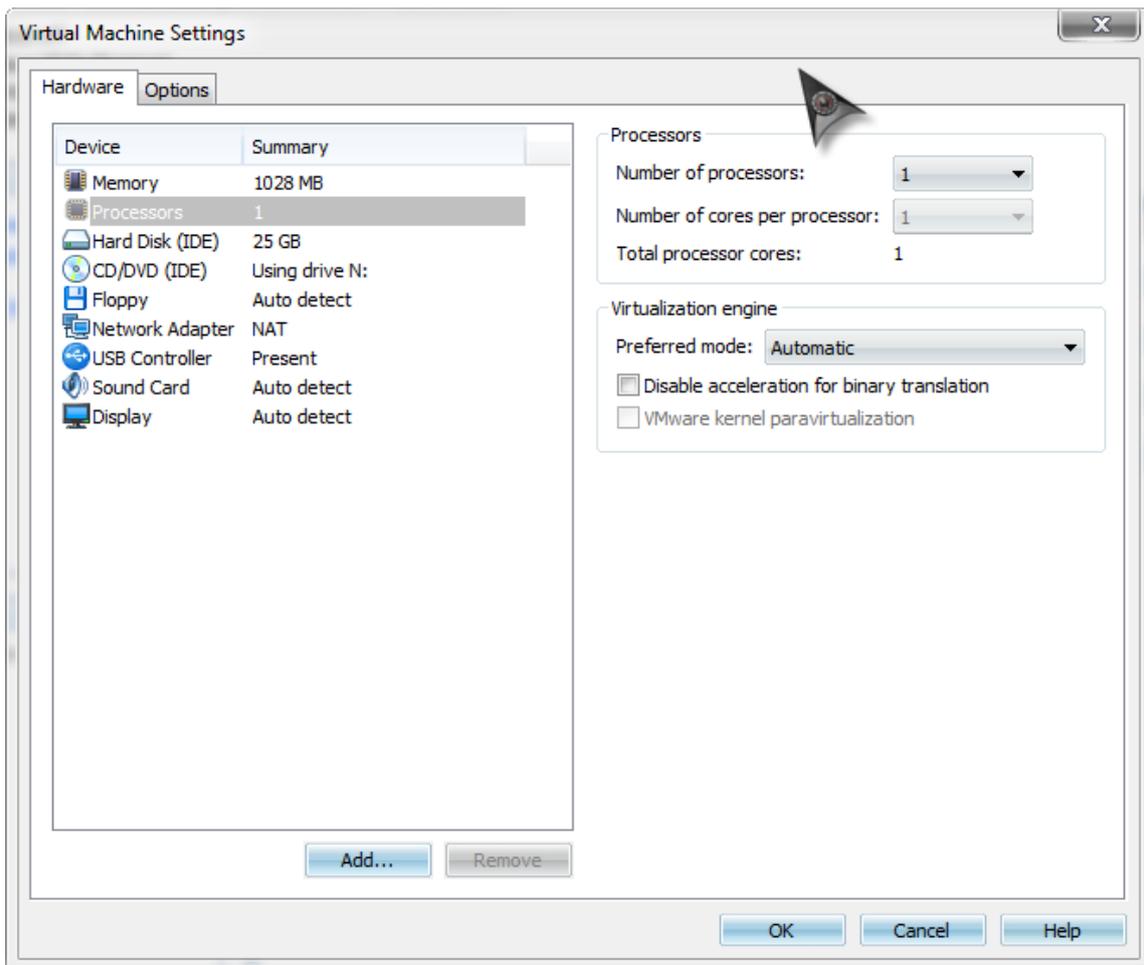
Customize the Hardware:



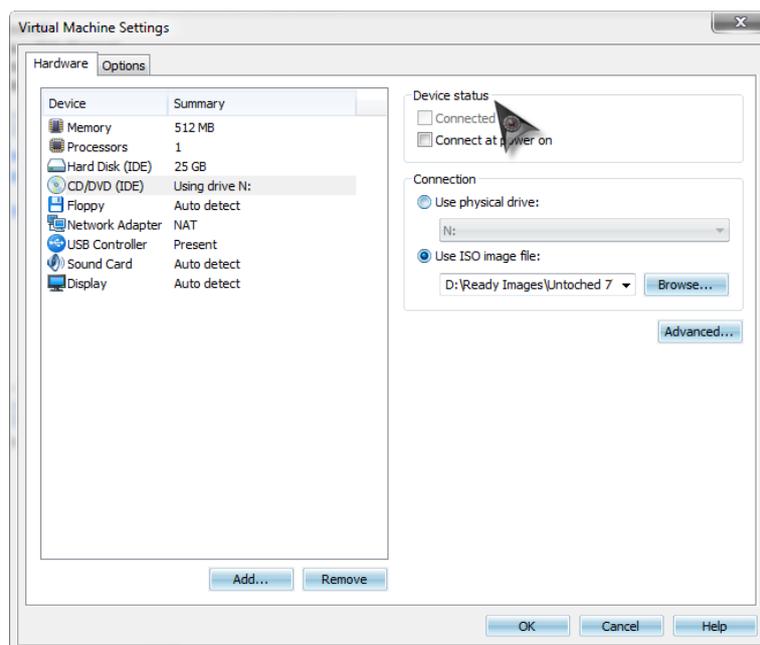
select the amount of ram you want to use:



select the number of processors:



select Use Iso Image File and browse to the Iso File:



Power on the Virtual Machine:

## Windows 7

State: Powered off  
Guest OS: Windows 7  
Location: C:\Users\xDark\Documents\Virtual Machines\Windows 7\Windows 7.vmx  
Version: Workstation 6.5-7.0 virtual machine

The screenshot displays the VMware Workstation interface for a Windows 7 virtual machine. On the left, the 'Commands' pane includes 'Power on this virtual machine', 'Edit virtual machine settings', and 'Enable ACE features (What is ACE?)'. On the right, the 'Devices' and 'Options' tabs are visible, showing a list of hardware components and their configurations.

Device	Option
Memory	1060 MB
Processors	1
Hard Disk (SCSI)	20 GB
CD/DVD (IDE)	Using file D:\Ready Images\7 xDarkv 2.0.iso
Floppy	Auto detect
Network Adapter	NAT
USB Controller	Present
Sound Card	Auto detect
Display	Auto detect

when Windows 7 has been installed click on VM Menu -> Install VMware Tools..., when installed reboot and you are ready to test your Custom Build.

---

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