Subject: SysInfo - some bug fixes
Posted by luoganda on Fri, 02 Dec 2016 13:02:11 GMT

Both is for windows version - v10502:

1)For all 3 this kind'a functions:

void Window_Top(int64 windowId){
  SetWindowPos(reinterpret_cast<HWND>(windowId), HWND_TOP, 0, 0, 0, 0, SWP_NOMOVE ||
SWP_NOSIZE || SWP_SHOWWINDOW);
}
from || into | -> thats SWP_NOMOVE | SWP_NOSIZE ...
Note: Window_Top will not set foreground window properly(at least not on windows xp) - to
reproduce this
fully maximize some window(eg TheIDE) and use Window_Top/Window_TopMost on some
background window - it won't work.
For one who want's properly set-foreground-window, try this link(scroll down to SwitchToWindow)
https:// groups.google.com/forum/#!topic/comp.os.ms-windows.programme r.win32/loryh6U6KFg
Note for code in link: SwitchToThisWindow seems that it doesnt need to be loaded by LoadLibrary
- can be used directly.
On windows xp sp3/4 it works as expected.

2)Window_SaveCapture - gdi mem leak and incorrect results for lets say 16 bit screen depth:
end:
 SelectObject(hDC, oldBM); into -> SelectObject(memDC, oldBM);
returned Image does not return proper 'bitmap', because requesting dib is not set:
-setting requested dib to 24bit(because generally 32bit seems to not work correctly?)
-convert to Image format, that's from requested 24bit-pixels to Image 32bit-pixels
Should do the trick.
The optimized way would be to copy pixels directly from ScreenDC(GetDC(0)) to 32Bit Image
format.

Subject: Re: SysInfo - some bug fixes
Posted by koldo on Mon, 05 Dec 2016 09:26:52 GMT

Thank you luoganda. I have updated SysInfo.

- Window_Top()
I have not found any problem with actual implementation.
New button is added in SysInfo_demo_gui to easily check this feature.

- SWP_NOMOVE | SWP_NOSIZE
Stupid me!. Thank you, now it is fixed.

- Window_SaveCapture()
Sorry, I do not understand you well, could you upload the code you propose?
Now code is a little bit changed just for avoiding an awful "goto".

File Attachments
1) Screenshot.png, downloaded 582 times

Subject: Re: SysInfo - some bug fixes
Posted by luoganda on Tue, 06 Dec 2016 14:07:38 GMT
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Window_top:
  on windowsxp it doesn't show up, at least not programmatically with many windows on - yet to check,
  but suggested ver works always

Window_SaveCapture:
  Excelent example is Reference/CaptureScreenDll - it properly DeSelects oldBM, but it is a little buggy,
  so here is patched version, without the patch img is invisible:

```
Image ScreenShot(int x, int y, int cx, int cy){
 HDC dcScreen = CreateDC("DISPLAY", NULL, NULL, NULL);

 RGBA *pixels;

 Buffer<byte> data;
 data.Alloc(sizeof(BITMAPINFOHEADER) + sizeof(RGBQUAD)*256);
 BITMAPINFOHEADER *hi = (BITMAPINFOHEADER *) ~data;;
 memset(hi, 0, sizeof(BITMAPINFOHEADER));
 hi->biSize = sizeof(BITMAPINFOHEADER);
 hi->biPlanes = 1;
 hi->biBitCount = 32;
 hi->biCompression = BI_RGB;
 hi->biSizeImage = 0;
 hi->biClrUsed = 0;
 hi->biClrImportant = 0;
 hi->biWidth = cx;
 hi->biHeight = -cy;

 HBITMAP hbmp = CreateDIBSection(dcScreen, (BITMAPINFO *)hi, DIB_RGB_COLORS, (void **)&pixels, NULL, 0);
 HDC dcMem = ::CreateCompatibleDC(dcScreen);
 HBITMAP hbmpOld = (HBITMAP) ::SelectObject(dcMem, hbmp);
```

```
  HDC hdcCompatible = CreateCompatibleDC(dcScreen);
  ::BitBlt(dcMem, 0, 0, cx, cy, dcScreen, x, y, SRCCOPY);

  //ver-1: use this version or down 2 - whichever is faster
  //Image img; <= direct to image could be used here to optimize, since now it's into buffer and then
  to Image
  //mint 32on32Bit/64on64bit machine dependant int to speed up
  //for(register mint i=0,j=cx*cy; i<j; i++)pixels[i].a=0xff;

  ImageBuffer ib(cx, cy);
  memcpy(~ib, pixels, cx * cy * sizeof(RGBA));

  //ver-2: use this version or up 1 - whichever is faster
  //mint 32on32Bit/64on64bit machine dependant int to speed up
  dword *pix=(dword*)~ib;
  for(register mint i=0,j=cx*cy; i<j; i++)pix[i]=*(dword*)&pixels[i]|0xff000000;

  ::DeleteObject(::SelectObject(dcMem, hbmpOld));
  ::DeleteDC(dcMem);
  ::DeleteDC(dcScreen);

  return ib;
};
```

And the test code:
```
 Image img=ScreenShot(200,200,400,400);
 ImageCtrl ic; ic.SetImage(img); //qbox(img.ToString());
 TopWindow w; w.Add(ic.TopPos(0,400).LeftPos(0,400)); w.LeftPos(0,440).TopPos(0,440);
 w.Execute();
```

Subject: Re: SysInfo - some bug fixes
Posted by koldo on Wed, 07 Dec 2016 07:50:10 GMT
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Hello luoganda

- Window_top
I have reviewed SetWindowPos() use in some forums and it seems it is properly used in SysInfo.
In fact it is very simple. I could not find complains about using it in XP.
Could it be that the problem you have found came from that initially it had SWP_NOMOVE ||
SWP_NOSIZE instead of SWP_NOMOVE | SWP_NOSIZE?
Please check the latest version in XP if it works.

- Window_SaveCapture
Sorry luoganda but I cannot see any advantage in Reference/CaptureScreenDll implementation.
SysInfo implementation does not suppose any screen bit depth, it selects, deselects and releases

objects and in addition it checks for API errors.
You can see an example in Bazaar/GrabYourScreen. It uses it extensively.

Subject: Re: SysInfo - some bug fixes
Posted by luoganda on Thu, 08 Dec 2016 00:52:48 GMT
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Window_Top:
  Nope,
  Here is a hint that may be asociated with this,
http://www.pinvoke.net/default.aspx/user32.SetForegroundWindow
  While Window_Top is meant to set window to top-zorder(that docs says-probablyOkForMost),
  SwitchToWindow does that + correctly set keyb focus
    Functions that should also set this are SetForegroundWindow,SetFocus etc,
    but on xpsp3 + latest updates till 2014 only SwitchToWindow seems to work

Window_SaveCapture:
  latest version i checked still has select/deselect bugs
    and missing stuff for 16/24bpp display.
    goto is fine by me

  16bpp screen depth - lower 16bpp image sample(black) uses suggestions that have been posted
before:

  32bpp screen depth is fine, since no sync is needed:

  Here is another link if up won't show:
    16/32bpp:
    https:// cloud.gmx.com/ngcloud/external?guestToken=nJmZuvaNSUyD8aGQzb
04ug&loginName=luoganda@gmx.com

Subject: Re: SysInfo - some bug fixes
Posted by koldo on Fri, 09 Dec 2016 22:05:18 GMT
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Thank you Luoganda

To fix the problem with 16 bits desktop now it is added
bmi.bmiHeader.biBitCount = 32;
This way bitmap is compatible with ImageBuffer format.