

## Demo Script for Illustra/Virage/Photoshop

### Key Message:

PENTIUM (R) PRO processor enables quick and more intuitive querying of a large multimedia database, as well as quick application of special effects to these multimedia images.

### App-Specific Messages:

Illustra/Virage - PPro allows us to do an amazingly snappy search based on attributes of an image, enabling a new intuitive way to find images. PPro runs the complex search algorithms needed to do this amazingly quickly.

Photoshop - PPro allows us to quickly combine several images into one composite image. PPro runs the notoriously slow Photoshop filters so fast, it affords an artist the luxury to try many special effects in a short time before deciding on what he/she wants.

### First Time Setup:

*You will need the 32-bit version of WinZip to extract this demo. An evaluation copy may be downloaded from <http://www.winzip.com> on the Internet.*

- Create a "D:" drive in Windows NT which is NTFS and at least 400MB.

- Use WinZip to open the archive in \PPRO\_WS2\Illustra.ins\illustra.zip. Extract all of the files to the root of your D: drive, making sure to use the directory names in the archive file. The Illustra directory must reside on the "d:" drive. The Illustra directory also requires an NTFS partition. So make sure your d: drive is on an NTFS partition. You can change drive assignments in NT by going into Disk Administrator found in Administrative Tools program group.

- Install Photoshop Tryout 3.0 if it's not already installed on your system. This is found under D:\illustra\additional\_illustra\_install\_files\photoshop\_install.

- Several files need to be copied from various subdirectories under Illustra to NT system and Photoshop directories. The FROM files/sub-directories are located in: \illustra\additional\_illustra\_install\_files.

FROM:	TO:
winnt35\system32\libmi32.dll	c:\winnt35\system32\libmi32.dll
winnt35\imgdemo.ini	c:\winnt35\imgdemo.ini
winnt35\illustra.ini	c:\winnt35\illustra.ini
photoshp\acquill.dll	c:\win32app\photoshp\acquill.dll
photoshp\plugins\illdbimg.8BA	c:\win32app\photoshp\plugins\illdbimg.8BA
photoshp\plugins\IllustraServer.8BE	c:\win32app\photoshp\plugins\IllustraServer.8BE

Note: "TO" assumes that c: is where you installed Win NT. Replace c: above with drive on which your NT is installed on. Same goes for PHotoshop.

- Make sure TCP/IP is loaded. You can check this by seeing that "Simple TCP/IP services" are "started" by going into Services in the Control Panel. If not, you must either install a network card in your system and then load its appropriate driver; you will need the NT CD and access to your CDROM for this. Or you can install the MS Loopback Adapter which does not require you to have a physical network card in your system; you need again the NT CD for this. YOu can add/delete

adapters and drivers via Network icon in Control Panel. After loading an adapter driver, configure the TCP/IP protocol to match the following:

IP address: 140.174.145.153

Subnet mask: 255.255.255.0

- Create a user "miadmin" with administrative authority. YOU can do this via User Manager in Administrative Tools program group.

- Log out and re-login as miadmin.

- Run setup from \\illustra\additional\_illustra\_install\_files\illustra\_setup\_disk1

- If setup asks you to "Configure Target" do so accepting the defaults.

- IMPORTANT: Make sure ONLY "ORDBMS Service" and "License Manager Files and Service" are selected. It's important you deselect anything else selected before continuing. If this is not followed, you will have to begin the entire install process from scratch because files get corrupted.

- Enter a password if you wish for miadmin when prompted.

- If setup ever asks you to enter a license key, enter the following:

- 7368 1531 0107 5660 0912 4842 4101 8370 2009 1248 4281 6103 84

### **Demo Setup:**

- Make sure TCP/IP is loaded by checking that "Simple TCP/IP services" are started in Services found in Control Panel. If not already started, following must be started by clicking "start": Illustra Elan License Manager and Illustra Default.

If you get an error that Illustra could not be started because of a logon error, select the Illustra default service and click on the "Startup..." button and in the "Log On As:" area of the box, click the button with 3 dots "..." to the right of the "This Account" field. In the names field, double click on "miadmin" and then hit OK. Now try to start the service again.

- If you have a multiprocessor system or just would like to monitor processor usage, bring up the Windows NT Performance Monitor. Add a counter for the processor time for each CPU. Change the chart options to display a histogram, and set the window to always be on top. Minimize or downsize the Performance Monitor.

- Bring up Photoshop by double-clicking its icon.

### **Running the Demo:**

*italics typeface - these are notes to the demo person, i.e., not an action or soundbyte.*

*Following steps should be practiced until they become natural and quick. It takes a little while to get to the point that you can do this without thinking too much about it, and if you are able to do that it will look much smoother and better.*

### **Actions:**

- Go to File/Open in Photoshop.

### **Soundbyte:**

This is the traditional way to search for files I want. But files are not always intuitively named. This makes it difficult to search for files I want because the name doesn't tell me what kind of file it is or what's in the file. The search becomes even more arduous if the database of files is larger. What if I had an idea of what kind of file I wanted and I could do a search based on that ?

Illustra Server with the Virage front-end allows me to do just that. Illustra Server plugs into

Photoshop giving me the ability to search a large object oriented database. In this case our database is of multimedia images. Illustra provides different types of datablades which are essentially search algorithms. In this case we will use an image datablade in Illustra that will allow us to search for an image we want based on a starting image and several image attributes we are interested in.

**Actions:**

- Select File/Acquire/Illustra Image.
- An user interface will pop up.*

**Soundbyte:**

Let's say I'm looking for an image of clouds and a street on the bottom. Well, here's one in our starting collection which is quite close (pointing out the clouds and mountain image; Image #5 counting from left to right, top to bottom).

**Actions:**

- Turn "Overall Color" down to zero.
- Turn "Regional Color" up to full.
- Turn "Regional Texture" up to full.

**Soundbyte:**

Now since I'm interested in an image that has the various color and texture attributes similar to the image I have here, I can begin my search.

**Actions:**

- Click on "Search for Images".

**Soundbyte:**

We're getting a closer to what I'm looking for.

**Actions:**

- Click on Image #3.
- Click on "Search for Image".

**Soundbyte:**

Now this one is even closer to what I want.

**Actions:**

- Click on Image #7.
- Turn "Regional Color" down to zero.
- Click on "Search for Image"

**Soundbyte:**

Wow. Found it. This is what I was looking for (pointing to Image #2).

**Actions:**

- Click on Image # 2.
- Click "Copy into Photoshop".

**Soundbyte:**

Now we'll bring in a couple of other images the traditional way.

**Actions:**

- Open porsche.psd and shadow.psd found in \photoshp\demo\_files

**SoundByte:**

- Photoshop is one of the most popular, powerful and performance hungry applications in use in the imaging and pre-press market. It is often used on large images which can take quite some time to process, but PENTIUM (R) PRO processor makes it a much quicker proposition to do this. What we are going to do is to create a composite image out of several images, and then apply some special effects to our composite image.

**Actions:**

- Maximize PHotoshop window if it's not already.
- Click on the Place tool (one with four arrows near the top of the tool bar).
- Drag and Drop the shadow image from the shadow.psd window on top of the street in the "Untitled" window. *The Untitled window is the one with the clouds and the street image we retrieved using Illustra.*
- Repeat last step for the porsche. Drop it on top of the street just above the shadow.
- At this point, shadow.psd and porsche.psd can be closed. Double click on top left of these windows to do this.
- Maximize "untitled" window, now our composite image.
- Zoom in by hitting CTRL-+ or going to Window/Zoom-in.
- Make sure Layers are on, by enabling "Show Layers" found in Window/Palettes.
- Click on the background layer thumbnail in the Layers palette.

**Soundbyte:**

- Now we will apply a special effect. Note how fast it will take place. We'll apply a motion blur filter to the background to give the illusion of the porsche moving against this background.

**Actions:**

- Select Filter/Blur/Motion Blur. Hit Ok.

**Soundbyte:**

- We'll do the same to the porsche by applying a wind filter.

**Actions:**

- Select Filter/Stylize/Wind. Hit Ok.

**Soundbyte:**

Well here we have it. Now we can flatten this image into one by compressing all the three layers into one.

**Actions:**

- Select "flatten image" by clickin on the small arrow tab found on top/right of the Layers palette.

**Soundbyte:**

Let's add some special effects to our final image. First let's add a sun in the background, and then we'll add a blue ambience to the whole picture.

Notice how the Performance Monitor shows both (all) CPUs fully utilized during the filter operation. Not only does the performance of a single PENTIUM (R) PRO processor make Photoshop fast, but for the slower operations in Photoshop which are threaded, the PENTIUM (R) PRO processor's multiprocessing capabilities can significantly increase the performance.

**Actions:**

- Select Filter/Render/Lens Flare. Position the lens or sun anywhere you like.
- Select Filter/Render/Lighting Effects. Select Style/Blue Omni. Hit OK.

**Soundbyte:**

Notice how quickly we were able to combine several image into one and then apply some creative special effects to get a real interesting result.

The PENTIUM (R) PRO processor allows these manipulations to take place as quickly as the artist can think of them. It can make Photoshop into a real-time artists tool.

**Note:**

Other Filters that you can try on the final image follow. Try them all to see which ones you like best. Perhaps try a combination.

- Pixelate
  - Mezzotint
  - Color Halftone
  - Crystallize
  - Mosaic
  - Pointillize
- Render
  - Lighting Effects
    - Style
      - RGB light
      - Circle
- Stylize
  - Find Edges
  - Trace Contour
  - Diffuse
  - Emboss
  - Extrude
  - Tiles
- Distort
  - Ripple
  - Polar Coordinates (Rectangular to Polar)
  - Shear
  - Spherize
  - Twirl
  - Wave
  - Zig-Zag
- Noise
  - Median

*This demo may be run on a multiprocessor system and will show the benefits of MP while running various Photoshop filters. This demo should be run on a system with a graphics card with fast raster capabilities. We have often used the ATI Pro Turbo PCI card.*