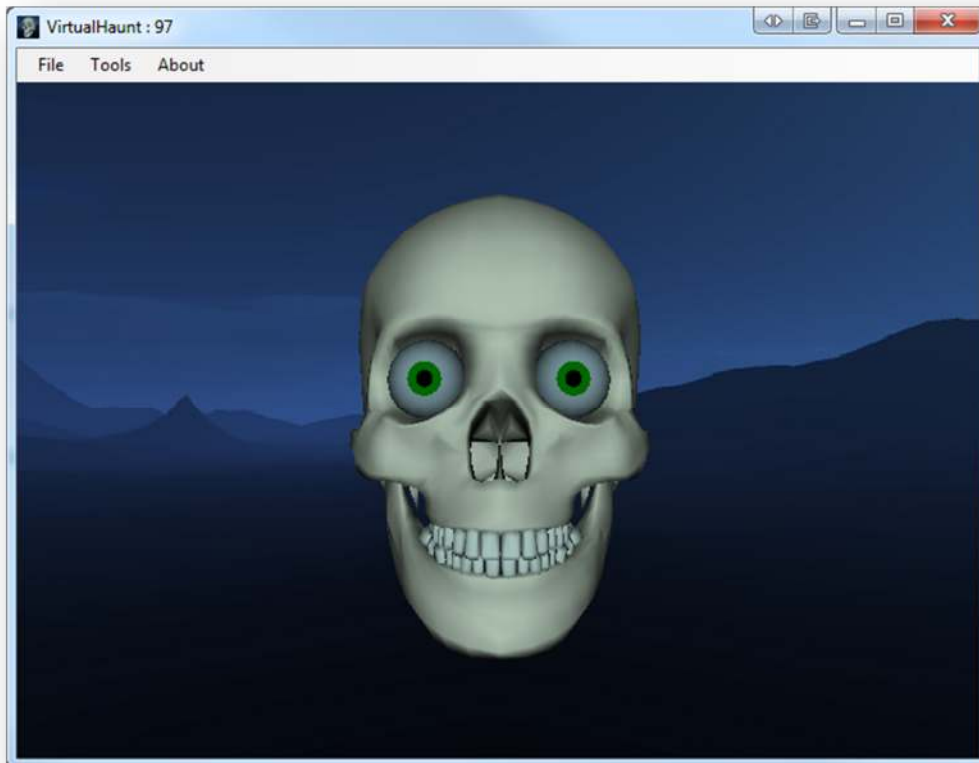


VirtualHaunt User Guide V1.0.3.2

By Nelson Bairos (MonkeyBasic)

Introduction

VirtualHaunt was developed to help haunters visualize their 3-axis skulls in virtualized 3D world. Allowing haunters to program their skeleton buddies all year long without having to pull out all of the Halloween supplies. (Which may or may not annoy many spouses, especially when setting up your Halloween buddies in the living room in July.) VirtualHaunt works by monitoring the data being sent to a serial port and emulating the servo controller that is typically connected, so most programs will work.



Don't have a 3-Axis skull? You can use VirtualHaunt in its place... Set up a projector in your haunt or a TV/Monitor in a window. There are lots of possibilities.

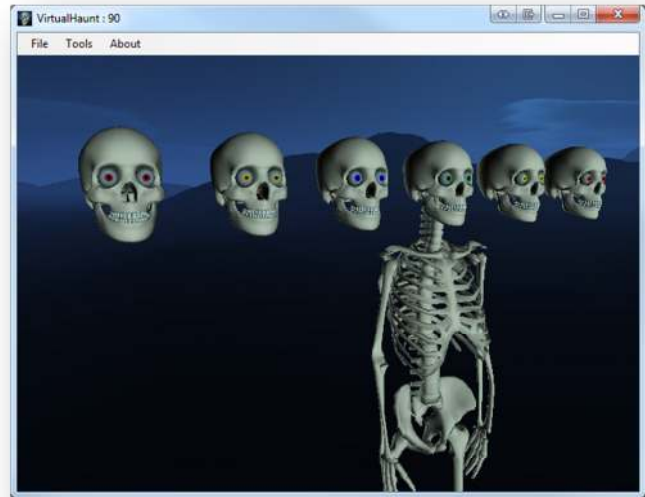
As with all my software, VirtualHaunt will forever be an evolving application. Users are always welcome to submit ideas to nelson@monkeybasic.com. Enjoy!

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Features:

- Works alongside many servo based communication programs
 - Brookshire Software's VSA - http://brookshiresoftware.com/vsa_overview.htm
 - Import settings directly from VSA
 - MonkeyBasic's TrackSkull - <http://www.monkeybasic.com/Products/TrackSkull/>
 - Vixen - <http://www.vixenlights.com/>
 - And more...
- Emulate the following Servo Controller types:
 - miniSSC (and compatible)
 - SSC32
 - SV203
 - Parallax
 - Pololu
- Handles up to 128 servos
- Up to 6 Skulls or Skeletons can be displayed at once.
- Position Skulls (or Skeletons) where you want on the screen as well as the camera (your view).
- Different backgrounds to choose from.
- Full-screen mode (great for when using during a Haunt).



.....
VIRTUALHAUNT WORKS WITH SERIAL PORT BASED COMMUNICATION ONLY!!! DMX IS NOT SUPPORTED, BUT I'VE DESCRIBED A WORK AROUND AT THE END OF THIS USER GUIDE.
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Requirements:

- [FREE] SlimDX Runtime (.NET 2.0) - <http://slimdx.org/download.php>
- PC Requirements:
 - P4 (or equivalent) or newer
 - 1GB Ram or more
 - Modern Video Card with Hardware Acceleration (some older Hardware Accelerated card may not work).
 - At least one Com/Serial Port (or USB to Serial Port adapter)

Installation

VirtualHaunt is reliant on an Open Source Framework for the 3D rendering. You will need to install this before installing VirtualHaunt or else the installation may fail.

SlimDX Runtime (.NET 2.0) can be downloaded from here: <http://slimdx.org/download.php>

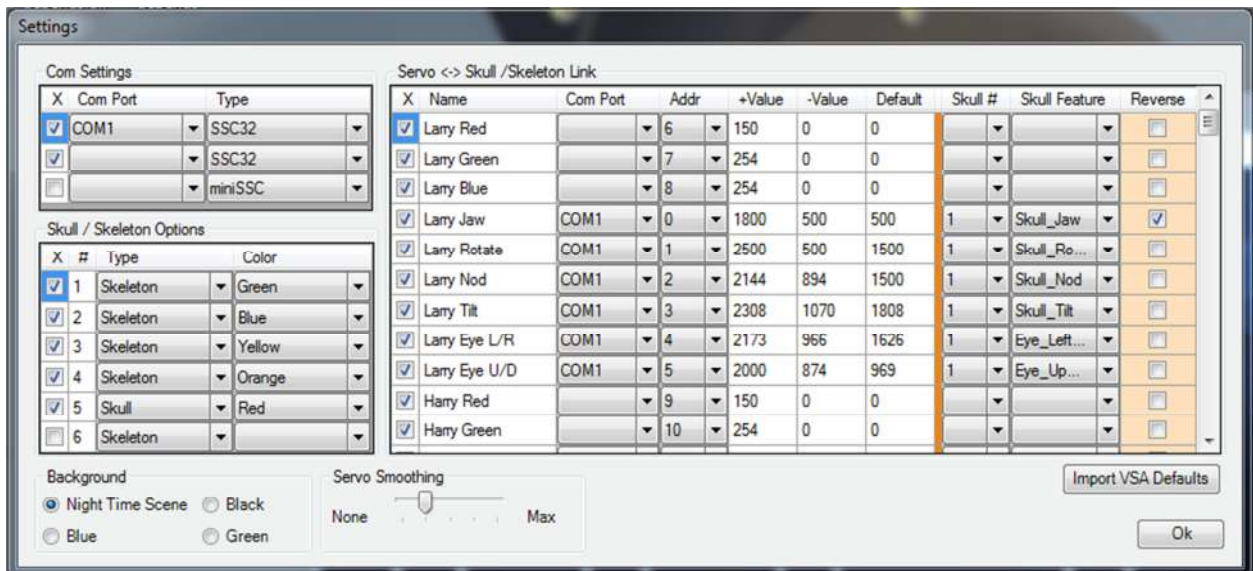
Make sure to install the .NET 2.0 runtime version!!!

Now, you can install **VirtualHaunt** – <http://www.monkeybasic.com/Products/VirtualHaunt/>

Settings (F3)

Settings is where you setup which Com port(s) you wish monitor, what servo channels to use, and how many skulls/skeletons to display.

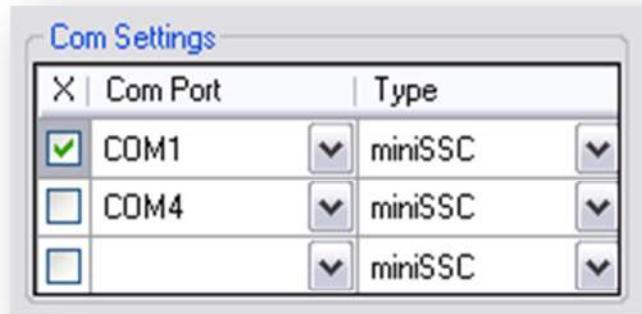
Settings can be accessed from File Menu by selecting Tools -> Settings or hitting [F3].



Com Port Setup

VirtualHaunt works by monitoring the data being sent to a Com Port and emulating the servo controller that is typically connected. You can select up to 3 ports from within Settings.

Choose the port number and type of controller you wish to emulate. The checkbox on each row enables it.



No Com ports, no problem...

For **Windows XP**, you will need to plug in a "USB to serial port adapter" for now. I'm currently researching 3rd part software that can be used to create virtual ports. If you know of any FREE or Open Source solution, please let me know!

Where to buy:

- [TRENDnet USB to Serial Converter](#)
- [Plugable USB to RS-232 DB9 Serial Adapter](#)

For **Windows Vista / 7**, you can download "Free Virtual Serial Ports" from HHD Software
LINK: <http://www.hhdsoftware.com/free-virtual-serial-ports>

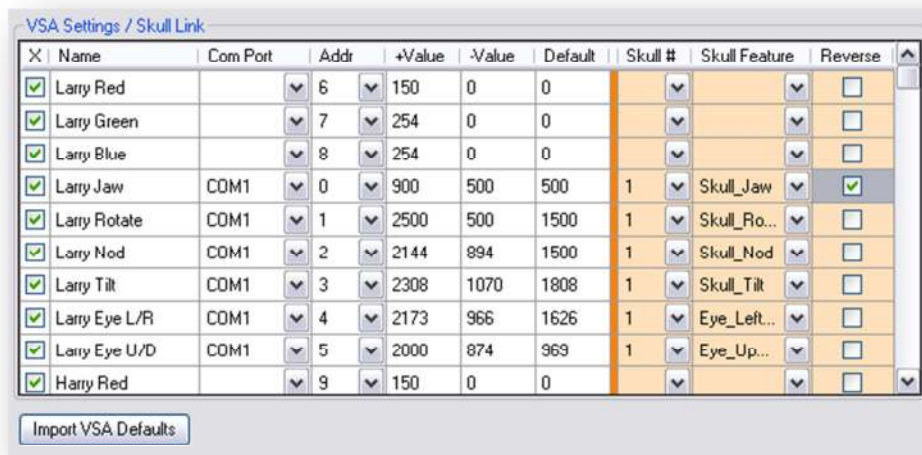
Note: Setup a "Bridge" connection and use one of the Com Ports that have been created.

Servo Setup

This is where you tell VirtualHaunt which Com Port and Servo Channels should be linked to which feature (Nod, Tilt, Rotate, Eyes, etc...) of each skull/skeleton.

The 1st seven columns are set up the same as VSA. If you know VSA, you should have no trouble here. If not, simply select the Com Port, Servo Address, and 3 servo positions (Default, Greatest Value, and Smallest Value). Columns 8 thru 10 are explained below:

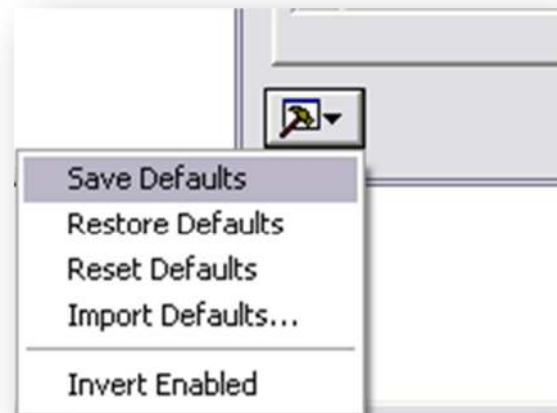
Skull #	The Skull you will be controlling (1 thru 6)
Skull Feature	The feature you want control (Nod, Tilt, Rotate, Eyes, Jaw, Arms)
Reverse	Reverses the direction of motion



Importing VSA defaults

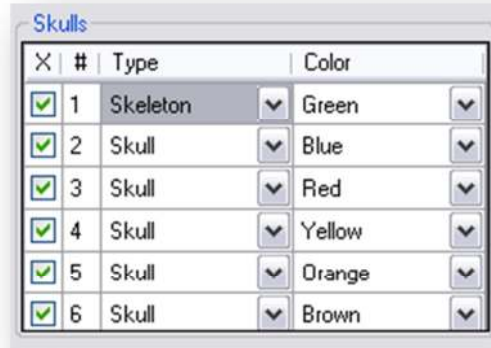
Any easy way to duplicate your VSA settings is to import them directly from VSA. To do this, you will need to make sure that you have your VSA Default settings saved. This is not the same as having them saved to a VSA routine file.

HOW TO: Open your saved VSA routine in VSA and open Settings by hitting F3. In the bottom left-hand corner, is a hammer icon. Select "Save Defaults" and close VSA. In VirtualHaunt's Settings, simply click the "Import VSA Defaults" and after a short delay, you should see your VSA settings loaded.



Skeleton Setup

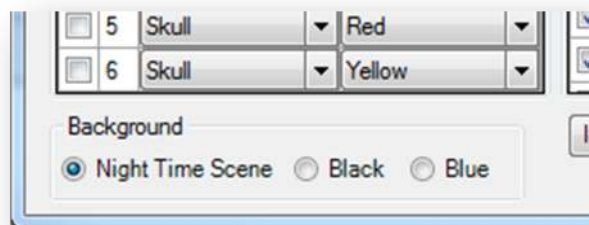
This one is simple. Enable from 1 to 6 skeletons, select whether you want to see just the skull or a full skeleton, and choose an eye color. Eye color helps to differentiate the skulls on the screen.



Background Setup

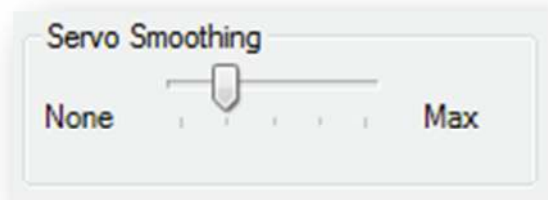
Change the background.

Night Time Scene	Default night time mountain range
Black	Great for use with Full Screen Mode (F5)
Blue	It's blue...



Servo Smoothing

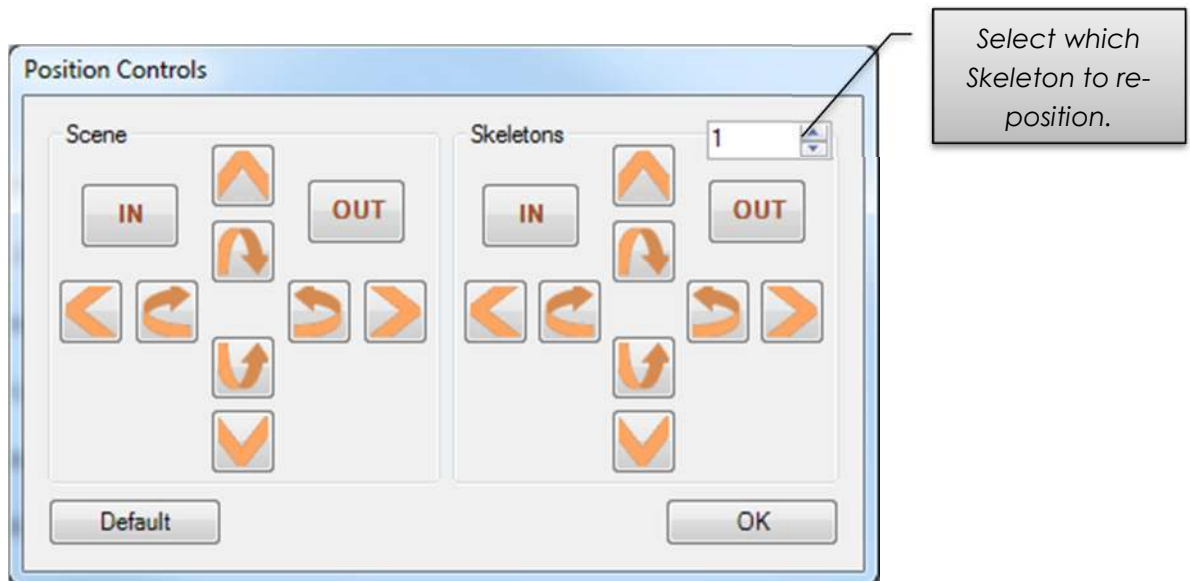
Applies a smoothing algorithm to each virtual servo in attempt to reproduce real servo movements.



Positioning (F4)

These controls allow you to reposition the viewpoint of the scene (what you are looking at) and the position of each skeleton. Play around with the controls; I believe they are pretty much self-explanatory.

Positioning can be accessed from File Menu by selecting Tools -> Adjust Positioning or hitting [F4].



The [Default] button will restore the position of each Skull/Skeleton as well as the viewpoint.

Full Screen Mode (F5)

Use the F5 key to toggle between Windowed and Full Screen mode. VirtualHaunt will expand to encompass whichever monitor it is located on. When in Full Screen mode, you can also hit "ESC" to return to a Windowed mode.

DMX Workaround

I know many people are starting to use with DMX, unfortunately VirtualHaunt is not able to monitor the DMX data (yet).

The best work-around is to create a copy of your VSA routine, open Settings and replace the "Type" of each servo with an equivalent Serial Controller selected.

DMX Controller	Equivalent Serial Controller
DMX Servo	miniSSC Servo
Boc Servo	Parallax Servo

Remember to write down your Servo's "+ Value", "- Value", and "Default" because when you change the Controller Type, VSA will reset these values.
