Code Portfolio
By Roy Massaad

Following is a series of snapshots from some of my applications appended by some info:
All bear my signature of *Red Phoenix*.
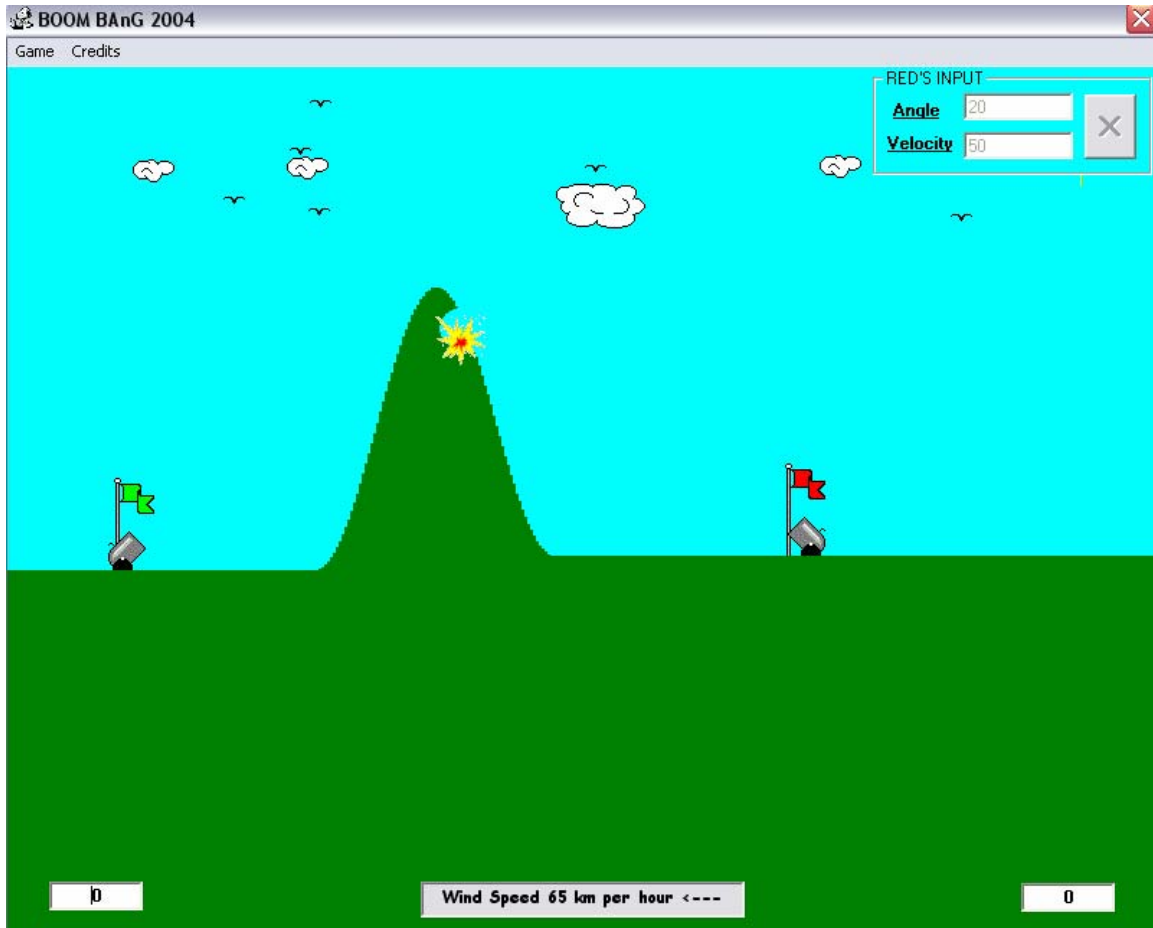
Title: **Hades Requiem**

Info:

Welcome to the word of Hades! *cheer up for things can't get any worse since you are already dead.* In this demo of a FPS, I showcase the capabilities of the engine that is hosting it.
For starters it was coded with **C-Script** on the A6 3d engine.
The **A6engine** is unlike the common 3d editors like Worldcraft, Q3Radiant and so forth, because it's a full development framework (it's like the Nebula Device, only with a better framework).
Although Hades Requiem takes place in a single room (Hades' tomb), the programming it entailed was not that trivial. Amongst the supported features found in this room through code and design are the following capabilities: Manually coded portal mirror, manually coded player movement, the engine's Physics' capability through code, a particle system through code, dynamic lights, one NPC and a terrain system also through code, the rest done through editing.
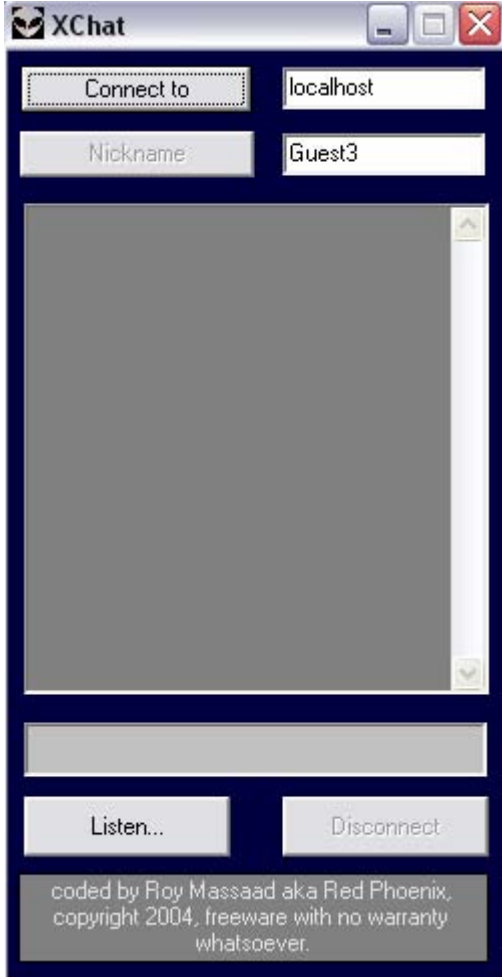
Title: **Boom Bang**

Info:

This is a rip-off game of Microsoft's "classical" cannons game, only a little more polished.
It was developed using **Visual Basic 6**.
It supports deformable/random terrain and the same cheesy graphics as the original game.

Title: **Alien XCHAT**

Info:

This application is a simple peer to peer messenger that relies on **winsock TCP/IP** to establish connections. It was kept intentionally simple and light on the fingers.
It was developed using **Visual Basic 6**.

Title: **Chat Maniac**

Info:

This application is a precursor to Alien XCHAT, it is also a chat program, but since it was developed earlier, it depends on outdated, less reliable, technologies in establishing its connections. On the other hand it supports a good deal <u>more</u> of <u>functionality</u> than Alien XChat, such as multi-party sessions, <u>avatar pictures</u> and various customisations, including <u>passwords</u>. It was developed using **Visual Basic 5**.
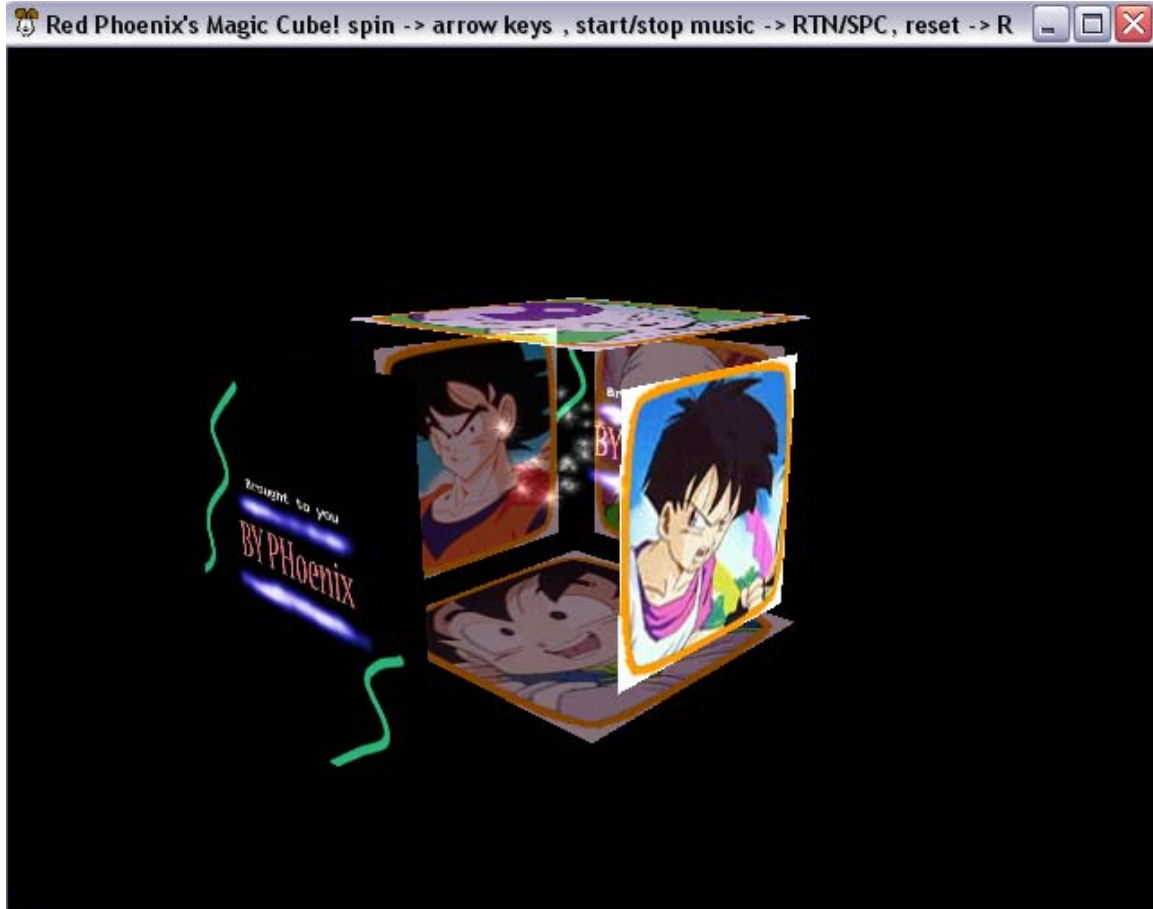
Title: **Magic Carpet**

Info:

MagicCarpet is mainly a toy utility that lets you browse your images using a 3 dimensional waving 'carpet' instead of the usual 2d plane that most sane software packages support.
It's supposed to be wacky hence it supports all kinds of trivial features such as manipulating the carpet in all different ways and adding effects to the images it's displaying, like warping.
It was developed using **OpenGL** and **C++** onto native **Win32**. Worthy of note is that I manually added support for more image formats than the average **GLUT** library supports using some tweaks through **MFC**, which wasn't all that straightforward as looking it up in some reference somewhere. I also programmed this program's very own 'advanced' mouse logic that manipulates the carpet taking into consideration such things as motion error correction and fading motion inertia. The other programmed parts were rather monotonous and not worthy of mention here.
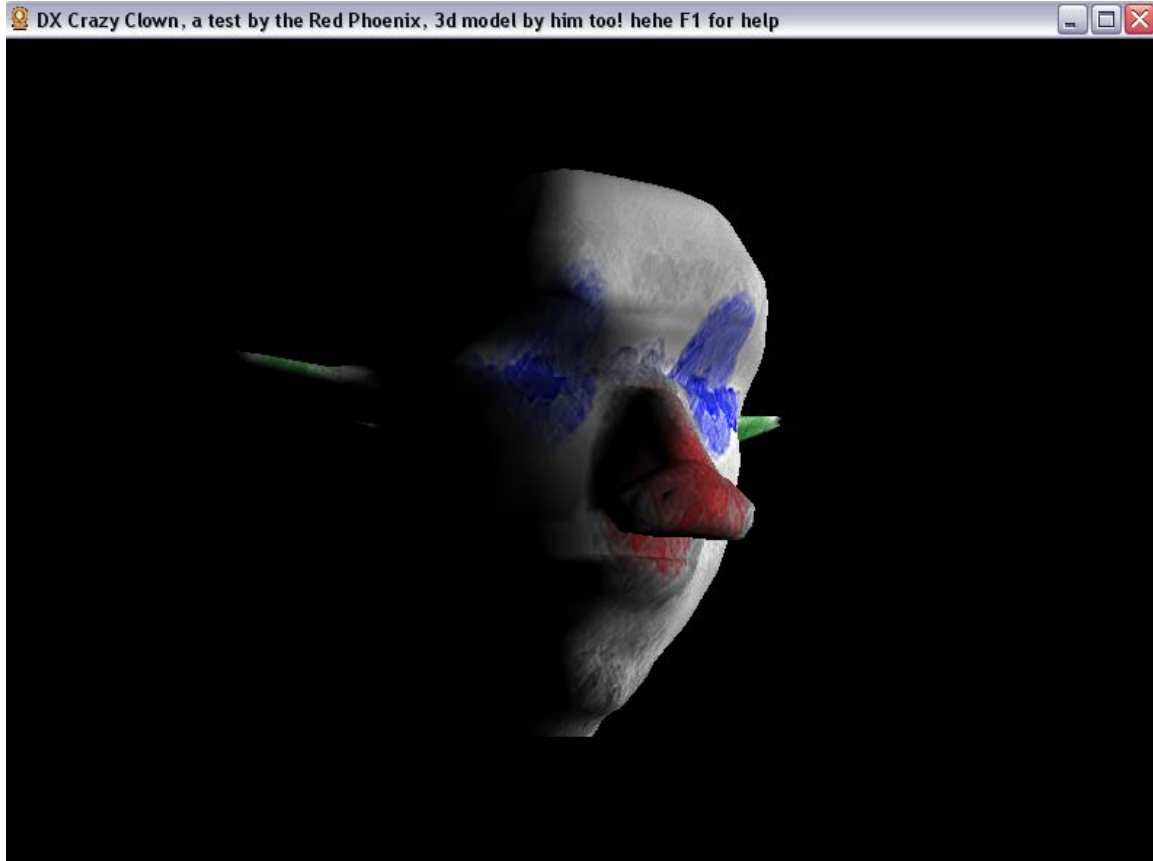
Title: **Magic Cube**

Info:

Magic Cube is also a 3d toy, and a personal ode from myself to the first cubists (not Picasso!) programmers of the early wireframe era. The choice of Dragon Ball pictures is no accident, I like them also. Essentially what this fancy cube does through its code is a small feast of camera dollies, modest particle effects and animation and a lot of blending.
In short, it's another Cube demo but with my name on it.
It was developed with **OpenGL**, **C++** and **Win32 API**, although music playback is supported inside it through **DirectMusic's DCOM** interfaces.

Title: **Crazy Clown**

Info:

Crazy Clown is a demo application, it's not even a toy, for the only thing it's good for is looking at it, and it's pretty scary at that too, which was my intention exactly *:D* . Its light/shadow (shading) interplay is paying homage to the master painter Caravage.
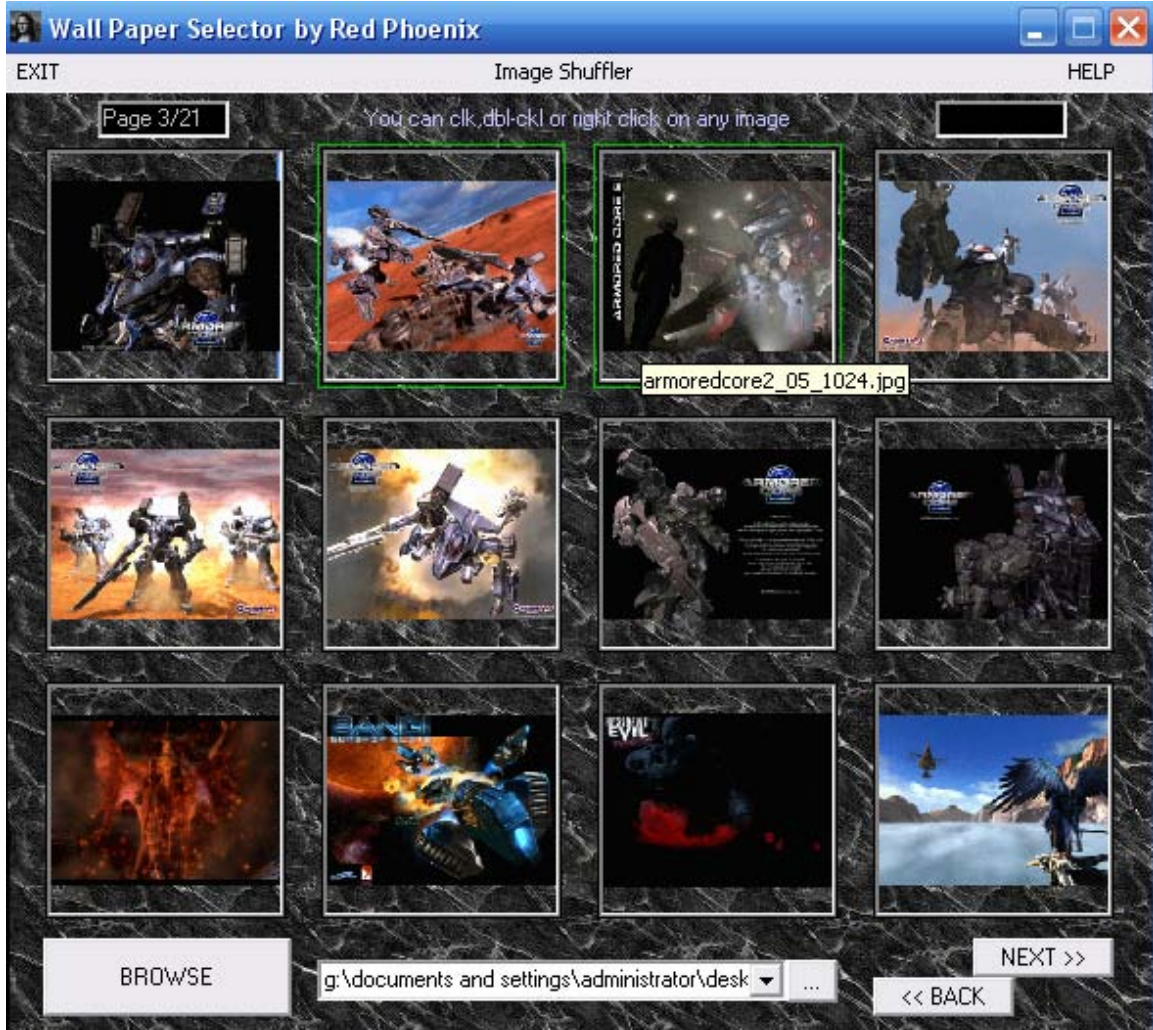This application hosts a slowly rotating head of a rather sinister looking clown, with textures applied to it through mapping and a light source that keeps eerily scanning the parts of the scenery in search for nothing in particular. While not exactly Pixar in rendering quality, it is still real-time, interactive, and a whole lot better looking than most Machima movies.
It does support manipulating the light source's direction and nudging its color tints,
The head I modelled myself in **3D StudioMax**, before sending it to **Cinema4D** for final export.
The mesh of the head was then exported to .x format with position, normals, and mapping coordinates.
The application was coded with **Direct3D**, **C++** and **Win32**.
Since this application was to be built using the Direct3d for display, the mesh was imported into Dx's **MeshView**, optimised, validated and then resaved, the end result being a light clean mesh.
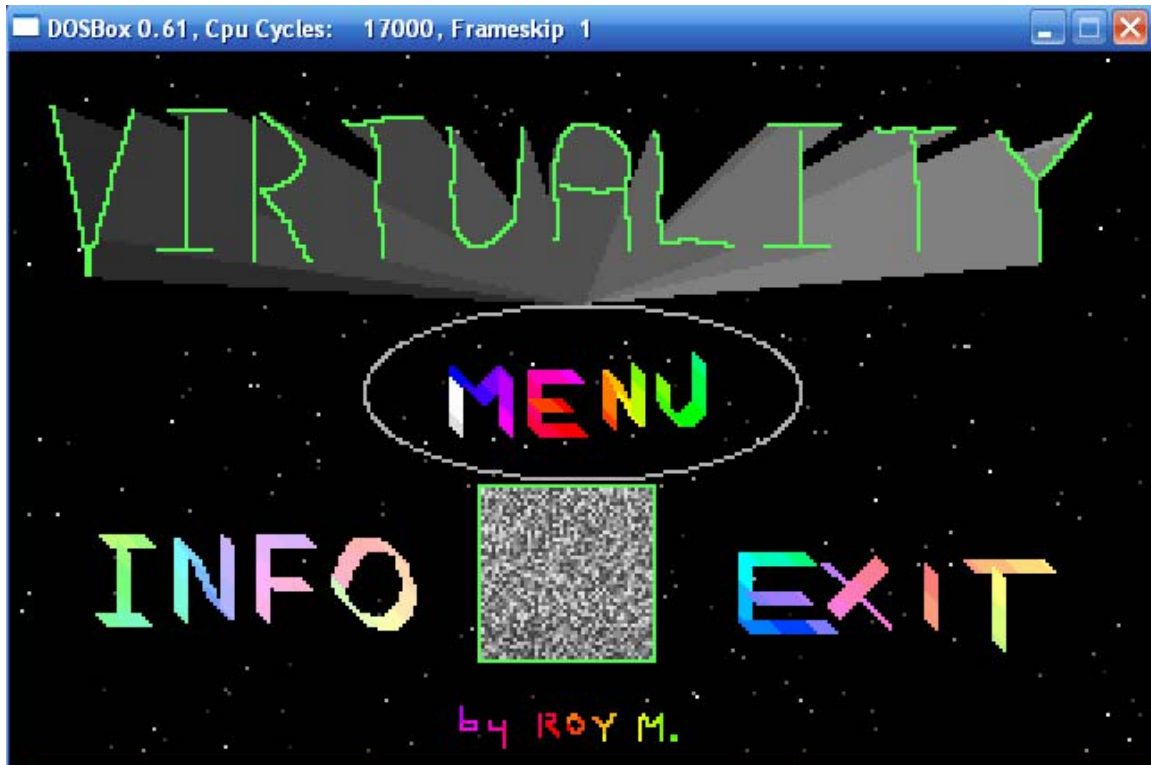
Title: **WallPaper Selector**

Info:

Wallpaper Selector is an image browser. It allows you, in addition to displaying and browsing your collections, to randomly display images after windows boots up. This program was more useful in the days before Win98 second edition, where there was no thumbnail support in Win Explorer.
It was programmed in **Visual Basic 5** with some custom third-party **ActiveX** controls inside it.
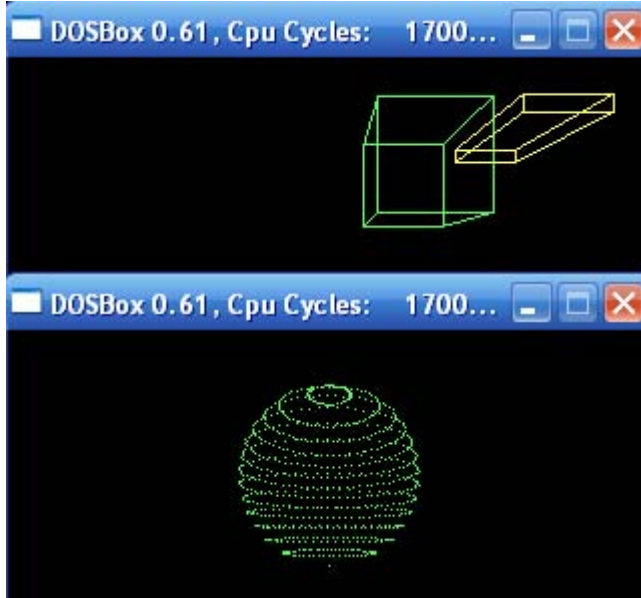
Title: **Virtuality**

Info:

Old dos program, it still shines til this day, hosting around 25 different effects, ranging from 2d particle effects to mimicked screen savers, star fields and morphers, it is a brightly colored testament of what a 16 year old kid bored from tedious school lessons can do.
When I programmed this project, I had just discovered **QuickBasic** which allowed me to create bigger, faster, non-interpreted BASIC programs, which was by my standards, pure unadulterated magic. Another lasting legacy of this program is that it is still the bigger and largest structured monolithic program I've ever made, good thing that that questionable habit promptly ended with this project.

Title: **VOID**

Info:

No presentation about my programs would be complete without me mentioning another one of my old DOS days programs.
This is VOID, my high school attempt at creating a software-based 3d engine.
What it does support is loading vertices in customised file format, proper projection display, translation, rotation and both Point and Line segment modes. It also had its own nifty little level editor. It was coded in **QuickBasic**.
What it doesn't support, and which nearly caused me a nervous breakdown back then to figure out is: the need to include CLIPPING/CULLING, how to remove hidden surfaces, how to apply textures, and that using the Basic Language is a very bad idea when speed and float precision is involved.
Nonetheless I learned a lot doing it, and latter on appreciated the need to use such contrived and sometimes masochistic designs and algorithms to get around those problems like BSP trees, Caulk Textures, and the whole lot.

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That's about it for this portfolio, it included some of my codes, but not all, I hope it was useful.
Working code is available for viewing for any interested party.
As for me, I'll be definitely off researching some more, hopefully my next tech-demo will be a serious 3D RTS game engine, A-star algorithm and all that Tiling magic included!
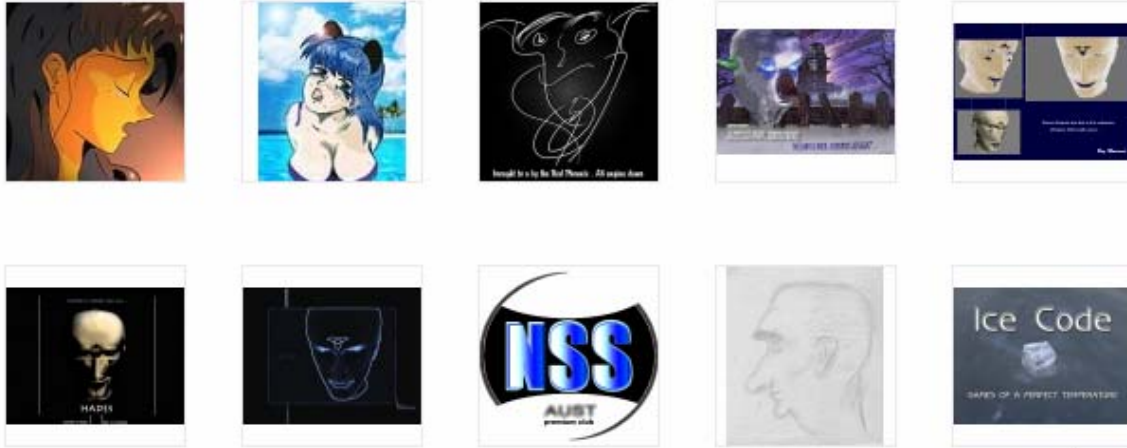

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Appendix 2

Mini Design Portfolio
By Roy Massaad

This portfolio is more like a miniature reel, the pictures were kept intentionally low-res for public access reasons. They are but a sample of my work, for they were both designed and implanted by myself, from conceptual inception til creation. The tools of their development range from simple scanned pencil drawing, to Photoshop editing, CorelPainter painting(through tablet) and 3D modelling through 3d MAX.
The larger range of my work can be brought to the attention of any interested party in person.

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Mini English Literature Portfolio
By Roy Massaad

This portfolio is even more conservative than the Design portfolio for pending copyright issues, so bare with me if it's shy in the size department. But as usual, any interested party may contact me for further inquiry and perusing material.

This is a snippet except from my forthcoming novel. (Title also pending)

"*Another day, another dawn. A world on the move, out of hiding after the thunderous blizzards of the previous night.*
The sky was left blue that day after the snow had fallen, dominated by the sun's piercing flare it hosted no clouds in sight. A radiant overhead azure bright bathed in frigid air, causing the sun's rays to rain down everywhere in sticks of ghostly ice. Amidst this scenic expanse of one inferno overrun by twisted spikes and dunes of ice did two horse mounted individuals cling to whatever precious warmth their fur coats could provide. As they traversed the white desolate landscape of below, they were getting ecstatically greeted by some freezing gusts that the horizon occasionally mustered and then erratically treated by some samples of intrepid hail made out of quaint invisible frost.

'I do not like this Olra, this damned plan seems all too wild, this place all too forsaken. I'm no coward, but definitely no hero either! ' did the small one say, as of yet still not anticipating fully well the shape of Olra's replies and reactions."

This is another snippet from a political analysis paper I wrote.

"*The golden era of the Arabic world came to transpire throughout the Umayyad and Abbasids dynasties, after which an age of dissolution started to cast its eerie shadow over Arabia, as the eminent Arabic protagonist and poet **Al-Mutanaby** would affirm.*
The four hundred years long Ottoman rule of the Arab masses marked the nadir of the once glorious Arabic culture. They regressed whilst the underdogs sprout forth to inherit.
*No more where Arab scholars seeking past knowledge in order to assimilate it and contribute to its evolution, nor where they interested in reflecting their **true** ancestral heritage and enhancing it for the sake of new generations; all became dispirited.*
Dreadfully, many embraced the regressive Ottoman regime instead of trying to rebuff it.
*Few societies had the insight to fight against such horrible and intellectually degrading assimilation from the part of the Turkish Ottoman **High Seat**, bent on cleansing the Arabs from any form of cultural residue they might still have had from their ancestors.*"

And finally, another preview from an essay.

"*Fascinated by tales of miraculous intervention and hope beyond despair, children and romantics alike made of fairy tales a cherished symbol of hope for a better future.*
Henceforth an intricate part of a child's alternate reality, where concrete and virtual seamlessly merge, fairy tales have become a determining factor in a child's developing psyche.
It is from within this perspective that I undertook the task of reviewing two similar albeit distinct approaches to the Cinderella Fairy Tale. The first being that of Charles Perrault, in which he tackles the subject in a classical fashion, for the whole story is presented in a delicate idealistic manner where shocking notions are kept at bay.
Fit to be a beau ideal of perfectionism, this version of the story is worth a great deal of moral from a perfectionist point of view, for it presents the hope of reward for perseverance against the odds, while remaining pacifistic throughout.
True to norm, this version will appeal to those of romantic tendencies."

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