review

software / tool

Live video mixing / performance is one of the relatively new genres brought about by a generation of tools that offer access to the functionality inherent in the current generation of computer hardware. Although Touch Designer fits in the area of VJ software, it is more aptly described as "media development artware" because it incorporates a visual programming IDE (Integrated Development Environment), 3d / 2d amination application, and the ability to web-embed visual synths etc. Designer is much more of an integrated suite of tools than an application, per se, which makes it a little hard to classify.

Designer works in a signal-flow manner, like MAX, PD, Reaktor, VVVV, and Keyworx (to some extent). Information comes from the input devices, such as audio, video, MIDI, and whatever you can write code for in order to get Designer to hear. That information is processed and acted upon through Channel Operators (that generate or process signals), and applied to Object Operators (which usually refer to visual elements). All of these can generate their own signals and pass them on to other operators or generate their own outputs. Through the development environment, users can program their own interfaces as well. In short, Designer is a real-time media design, programming, and performance tool that is extremely flexible and powerful.

In addition to the real-time media production environment, Designer also provides a basic set of 2D and 3D modeling tools that are sufficient for most Designer tasks. For anyone wishing to bring in their own models, Designer integrates seamlessly with Houdini, and imports Renderman format files. From the internal formats, as well as imported files, effects like inverse kinematics, animated textures and others can be applied to 3D models for live Touch performances (I use Touch to refer to the general visual synth platform, and Designer for the development tool).

In performance, Touch offers a lot of features for the visual designer. Touch synths can run on dual monitor systems, allowing the operator to manipulate the visuals on one screen while projecting the other (most likely sent to video distribution amplifiers etc). Touch synths can also communicate over IP networks, meaning that multiple cameras can operate on the same synth, or numerous synths can operate from the same signal. However, because of latency times in the network, complete frame-to-frame synchronization isn't really possible, although a large-scale Derivative Touch net performance is technically feasible.

Within three months, I was able to get going at a good level of expertise. I connected a MIDI device to some channel operators, used a particle system, and produced some interesting effects. This also told me how deeply I could potentially dive into Designer, and that three months would not be enough to really sharpen my skills on this platform.

The extensibility of Touch is considerable: for example, ATR (Kyoto) artist Rod Berry has integrated AR Toolkit code with Touch to create an augmented reality visual synthesizer using this particular suite of tools. In Rod's synth, one might see a card with an icon printed on it, and above it, for example, a fan. Take another card

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Designer in use on tour with Rush

with a picture of a letter on it, place it next to the first one, and a mailbox with letters appears, with the letters being blown around by the fan. Of course, this is a logical extreme for the tool, and only illustrates its potentials.

In more mundane applications, bands like Rush and Plastikman make use of Derivative Touch in concert to create visuals for their various performances, and Prada used it for ambient visuals in its Tokyo showcase building. Derivative Touch Designer supports a range of applications, from sound and data visualization to nothing short of a development kit, if someone were inclined to push it this way..

I was impressed with the level of attention that Derivative places in their product, and the listserv offers incredibly good support for the product. The documentation (offered online) is a bit of a work-in-progress, but far more comprehensive today than

when I first saw Derivative Touch in 2003-4. Any questions about undocumented features are answered very quickly, and seem to be integrated into the manual at time of answer. At $ 1,199, derivative offers a lot, but you obviously have to be serious about using if you invest that much.

Trying to write a review of Derivative Touch Designer is like condensing an operator's manual for a 747 into a pamphlet. It's one of the most extensive live visual performance packages that I've seen and, as mentioned before, can even act as part of a live new media performance development kit. One may be a bit overwhelmed by its breadth of features, and its fairly unique interface paradigm. However, once one gets used to it, the Designer environment becomes much more intuitive, and delivers a lot of power. For what it does, Derivative Touch Designer is an amazing tool.
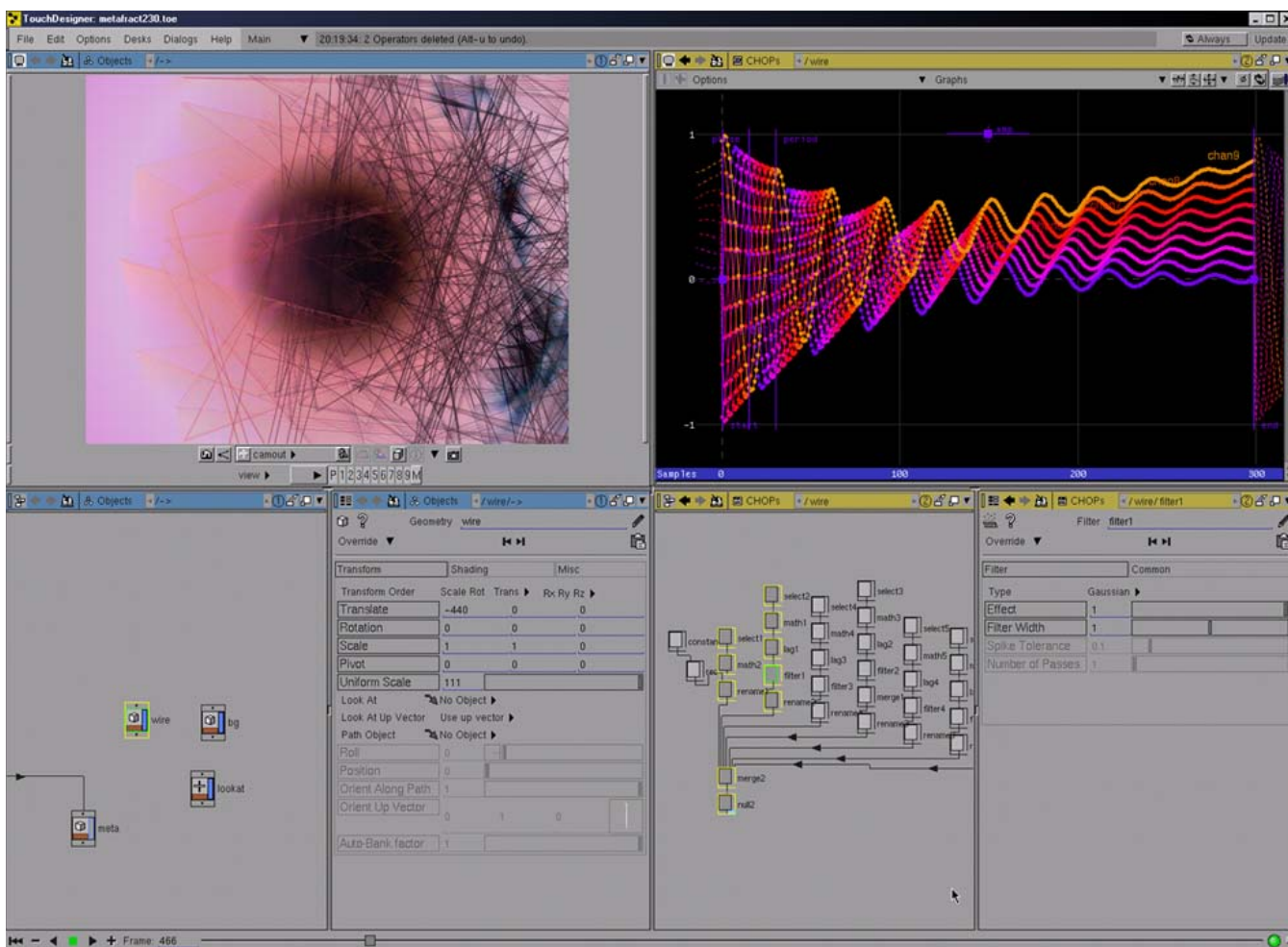
Touch Designer interface layout