



## **NukeX-traordinary**

*an industry op-ed by Steve Wright*

At the end of January The Foundry released NukeX, their enhanced version of Nuke. What NukeX adds is a very capable camera tracker, the lens distortion tools you need to go along with it, plus a core set of Furnace plug-ins that are an absolute must for camera tracking. I have been exploring NukeX for nearly a month now and I must say it is truly awesome.

With Nuke's all-powerful 3D compositing capability already setting the standard for visual effects pipelines, The Foundry recognized that camera tracking is an essential companion to 3D compositing so they have packaged NukeX as a brilliant bundle of mutually enhancing capabilities. When you add camera tracking to a 3D compositing system whole new possibilities open up. If you want to blend 3D CGI with live action you simply must have camera tracking.

A camera tracker analyses a live action clip to "reverse engineer" exactly where the camera is in the scene to create a matching virtual camera and establish key reference points in 3D. These key points are called a "point cloud" and they mark the exact 3D location of the street, a building, or anything else in the scene. The CGI department can then use this virtual camera and point cloud information to render 3D objects that fit perfectly into the scene with correct position and perspective. This workflow is the essence of modern visual effects and is required for common effects such as set extension.

Even without a 3D department the camera tracker in NukeX is extremely useful when combined with Nuke's built-in 3D compositing capabilities. The entire range of pan and tile shots can now be done totally within NukeX – no outside apps needed. Impossible 2D tracking problems can be solved when camera track data is factored into the computations. Clean plates can be built using camera track data to project selected frames onto cards, and then re-photographed. The list of usefulness is virtually endless.

Along with the camera tracker NukeX features a fist full of Furnace plug-ins, the ones that you most need for creating clean plates and other camera tacking related tasks. Superb grain management tools as well as rig removal and wire removal tools are included along with deflicker and plate alignment tools; everything you need to make clean plates ready for 3D compositing.



Interestingly, NukeX is actually “embedded” within Nuke6, the latest version of Nuke with a much enhanced roto and procedural paint capability. Nuke6 also comes with Keylight, one of my favorite greenscreen and bluescreen keyers. You only download the one app, then depending on what license you get, you unlock either Nuke6 or NukeX. The idea is that a visual effects facility will have some fraction of the seats with NukeX, but with a simple license key upgrade they can instantly expand into a large number of seats with NukeX without download any software upgrades.

Adding a camera tracker to Nuke’s 3D compositing capability was as stroke of genius on the part of The Foundry. It is a force multiplier that just about doubles the range of visual effects that Nuke can do and enhances the entire production pipeline into to a fast, efficient, and well-endowed production engine. When The Foundry adds 3D lighting to Nuke with SDI’s Katana system Nuke will be king of the world.