



Images courtesy of KPBS-TV, San Diego.

# KPBS-TV San Diego

By Kara Misenheimer

## KPBS seamlessly meets HD effects and editing needs for broadcasting TV.

KPBS-TV sets the bar when it comes to serving the local community. The San Diego-based public television station, which creates an array of informative and educational programming peppered with high-end graphics and animation effects, is also a model citizen in terms of its pipeline, now totally optimized for the production of high-quality, eye-catching content with speed and efficiency in high definition (HD).

KPBS made the switch to HD in 1999, electing to base effects and editorial around HD solutions from Autodesk. Today, the facility boasts a number of best-of-breed Autodesk packages that deliver artists unique capabilities as well as the ability to work quickly and creatively by exchanging works-in-progress, graphics elements, 3D models, and other files.

At the hub of the graphics department is a Discreet® Flame® and Discreet® Smoke® HD system, used on all projects for integrated effects and editing with remote rendering via a four-node Autodesk® Burn™ rendering network. This system connects via a gigabyte ethernet with a PC running Autodesk® 3ds Max®, Autodesk® Maya®, and Autodesk® Combustion® software applications on a two-node render farm. The entire setup links, via four terabytes of shared storage, to a Discreet Smoke HD system housed in the station's editorial division.

"We really benefit with Autodesk solutions, because we have robust programs on a network that can 'talk' to each other," says David Streib, Broadcast Designer, KPBS. "We can do the work in Flame, Smoke, Maya, 3ds Max, or Combustion utilizing the best tools for the job and then pass things back and forth, such as composites from Flame to Smoke or 3D shapes from 3ds Max to Flame. Also key to our setup and to meeting our deadlines is Autodesk Burn, which allows us to send sequences to render while we keep working."

Autodesk®



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Streib produces KPBS's 3D graphics, effects, and design elements—from animated maps, charts, and show openers for the station's nightly newscast, to station branding, in-house-produced spots, HD documentary opens/graphics, community outreach projects, and fund raising. For anything quick and animated or that requires polygonal modeling, Streib turns to 3ds Max software, a program he has been using since its inception. "3ds Max is our primary tool for building 3D motion graphics because it's fast," he states.

For other work, such as visual effects involving fluid or rigid body dynamics, he'll switch to the Maya interface. "Maya makes it easy whenever I need to create, R&D, or animate a complex character or effect," Streib notes.

Desktop compositing in Combustion comes into play particularly on projects that benefit from quick template effects, such as HD documentaries or children's programming. Here, Combustion software provides ideal tools for re-sampling archival photos as clean images and it offers a wide array of effects pre-sets as well.

In the graphics and effects suite, Flame sees heavy lifting from Streib for finishing on all effects and composites. Flame is used for "quick-turnaround events," such as creating animated news show graphics or producing animated backgrounds and lower thirds going to air during fundraising broadcasts. It also is a workhorse for compositing and animating sponsored "underwriting spots," which represent a large percentage of KPBS's production work—and support revenue. "Discreet Flame fits right into our workflow to get things out in a quickly," Streib explains. "Within our arsenal of Autodesk solutions, Flame has become our central hub. Everything converges here because people know their projects can be completed at the highest quality. Broadcast design has become a 3D medium—flat text over a flat image is just not enough. I think our supporters keep coming back in no small part due to the fact that they love the look we can achieve for them with spots done in Flame!"

Streib cites Flame integrated effects functionality as being a perfect fit for the high-quality, short-turnaround requirements of broadcast spot and 3D graphics production. Among his favorite features are Flame text modules and paint system built right into the Batch processor, as well as the system's powerful color correction tools.

More and more, graphics and editorial departments are collaborating on jobs where graphics meet editing, and KPBS's Autodesk setup gives Streib the flexibility to work in Smoke HD anytime he needs to deal with high amounts of video material or in a timeline edit fashion. He can also interface easily with Producer/Editor Tami Rogers, who runs KPBS's dedicated Smoke HD editorial bay.

"We can easily pull Smoke edited masters across the network," Rogers says. "I can produce a timeline with cuts and music and David can take that timed-out file and design the graphics with the bigger picture in mind. I can work in Smoke HD, which is really great for every single need we have in editorial, and I can integrate effects composites into my Smoke editing timelines. It's a simple way to collaborate."

Rogers particularly likes the DVE, Colour Warper™, and Axis Editor/Soft Effects functionality in Smoke, as well as the overall comprehensiveness of the Smoke HD toolset.

"Smoke HD speaks to the future of where systems need to be heading for HD," she adds. "It's well thought-out and I never need to exit the interface for what I need to do. That makes creating and delivering for deadlines that are 'right away' a lot easier."

KPBS's graphics and editorial artists deliver graphics and edited pieces for a total of three stations: KPBS HD, KPBS SD and Create, another PBS channel broadcast in SD. The integrated Autodesk workflow helps the station work at the high resolutions demanded in today's broadcasting, handling any task, format, or deliverable with a small and focused team.

"Autodesk provides us with a complete line of integrated creative solutions which gives KPBS the resources to better serve our community," Streib concludes. "I have all the tools at my fingertips to create something stunning, even if that starts out with someone coming in with only a handful of photos or a business card. In addition to handling all kinds of different source material, our setup is also very good for delivering on multiple masters and formats. We are constantly asked to produce and deliver in a wide range of formats, from HD and SD to providing files for DVD covers and print. It's a great advantage to do all of this at high resolution and in an integrated, networked, and collaborative fashion without having to lay out to tape."