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(www.smoke-mirrors.co.uk)  
New York, USA  
London, UK  
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—Simon Hester  
Head Engineer  
Smoke & Mirrors New York

# The Beatles Come Together Right Now Over Abbey Road

## How Autodesk Flare Helped Smoke & Mirrors New York Bring the Beatles' Abbey Road Album Cover to Life



Image courtesy of Smoke & Mirrors.

### Summary

When we hear that something was done with “smoke and mirrors,” we think of illusion—a spectacle that’s downright incredible. Smoke & Mirrors New York (SMNY) lived up to its name when its visual effects team recreated the classic Beatles’ “Abbey Road” album cover, and then brought that moment to life for a 30 and 60 second spot promoting a new MTV video game, “The Beatles Rockband.”

While it looks as if this fantasy was captured on film, the reality is that SMNY—the New York studios of famed visual effects house Smoke & Mirrors in the UK—created this illusion using Autodesk® Flare® visual effects and compositing software; Autodesk® Smoke® software for editing, and Autodesk® Softimage® software and Autodesk® Maya® software for 3D animation. Their Autodesk pipelines have further expanded with the addition of Autodesk® Flare™ software. A creative companion software to Flame, Flare enables facilities to take on more projects, develop creative talent, and build a more efficient workflow.

Both of the “Beatles Rockband” spots recreate the moment the Beatles—John, Paul, George, and Ringo—walk single file across the striped crosswalk of London’s Abbey Road. Cut to the song “Come Together” from “Abbey Road,” the Beatles stop in the middle of the street and begin interacting with people who show up.

The crowd, which now stretches up the sidewalk and beyond, crosses the road behind the Beatles to the

music’s beat. At the end, the steady stream of people speeds up into streaks of light that resolve into the tag promoting the game.

The SMNY creative team—including Nic Seresin, lead visual effects/Flame artist and visual effects supervisor; Senior Flame artist Phil Akka; CD Sean Broughton; Chief Engineer Simon Hester; and Flame Artists Stephanie Isaacson and Sam Caine—spent a very intense five weeks developing, compositing and finishing the ads, the latter of which had more shots but the same storyline.

This project marks the first time Flare was ever used on set during a shoot. Flare software was loaded onto a Hewlett Packard laptop with AJA video IO and graphics boards and used to evaluate each take to determine if the effects they wanted to create would work.

### The Challenge

Since there was no film or video shot when the historic Abbey Road photo was taken, SMNY had to create its full motion elements from scratch. The plan was to have four body doubles—dressed identically to the Abbey Road Beatles—walk like the Beatles did on the cover photo.

A blue screen set was built on the Universal lot in Los Angeles, featuring a partial view of Abbey Road, like the striped crosswalk, dotted lined street, a taxi and some trees. Seresin and other SMNY artists then did “head reps,” placing the heads of the Beatles—taken from 16mm archival film—onto the body doubles’ bodies and track the camera moves.

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Since the 16mm film had been shot at different points in the Beatles' careers, it was very difficult to find usable shots where they looked the way they did on the cover, so intensive visual effects were needed to make the effects work.

For example, there was no archive footage available of George and John sporting the same shoulder length hair, heavy beards and mustaches as on the cover. There was also no archive footage available of Paul with the same clean-shaven, short hairstyle from the cover either.

"This meant using heavy camera tracking, distortion, roto-scoping, and virtually every Flame tool we had to do the head reps, and take mustaches, beards, and extra hair and 'graft' them onto the Beatles' heads. We also had to consider subtle facial muscle movements before we added the hair," Seresin said. "The illusion had to be totally credible because viewers would know if it rang true or not."

Among the archival shots of Ringo was one where he was smoking a cigarette with big plumes of smoke wafting around his face and hair, so the cigarette and smoke needed to be painted out. An archival shot of George showed him holding a guitar such that the handle partially obscured his face. The guitar arm needed to be removed so his hair, mustache and beard could be grafted on, and then a CG Rockband guitar, created in Autodesk Softimage, was put in place of the original guitar. In the spot, a young girl hands her guitar over to George to make sense of the guitar in his shot.

The Abbey Road background also presented creative and technical challenges. First, the Universal set wasn't wide enough, so it had to be stretched about 30-percent in Flame to match the scale of the road on the cover. Also, the film plates shot of present day Abbey Road had defects like scaffolding on buildings that needed to be removed.

Among the elements keyed into the blue screen background were 3D CG buildings, which were created using Softimage 3D animation software. Photographed images of the actual buildings on Abbey Road were then projected onto the 3D buildings using Flame. The illusion was finished in Flame by adding matte paintings, moving CG cars and trees. The archival film required much digital restoration, and all elements and composites had to be color graded and lit to match the look and feel of the cover photo.

### The Solution

"Flare was indispensable on set because there was no other practical or effective way of ensuring that the body doubles' movements would line up precisely with the archival shots we planned to use," Isaacson added.

On the set, the output of the 35mm camera's video tap was fed into Apple® Final Cut Pro on a MacBook,



Image courtesy of Smoke & Mirrors.

and then exported as uncompressed Quicktime files into the laptop with Flare software.

"I then comped the archive footage on top of each take as it was shot to make sure we got a least one good take where the body double moved in a close enough way to the Beatles' movement in the archive footage so we could be certain we could line up the elements."

"The deciding factor for us in buying the Flare systems was the sheer volume of work we're doing these days," said Mark Wildig, chief technical officer of Smoke & Mirrors London. "We often have more than one person on a job, and that used to mean our heavyweight machines were always tied up. With Flare, we can free up our Flame systems to take on other work."

"Flame was extremely beneficial to this project because it contains all the tools we need to create and composite visual effects-intensive spots and finesse and finish them in one box," said Simon Hester, head engineer at SMNY.

### The Results

"Bringing the Beatles' Abbey Road album cover to life was one of the trickiest, most challenging things I've ever done to be honest," said Seresin. "It would have been impossible to do these visual effects without Flare."

"This wasn't something you could do with just a mix and overlay, or simple composites on a Mac," Seresin added. "It wasn't something you could ask the video assist to deal with since they have their own jobs to do. And we ultimately had to make the decisions about the takes because we'd be the ones doing the effects work."

"Flare impressed everyone that witnessed how it brought Flame capabilities to the set," Hester added. "Back in the studio, it works seamlessly with our Flames and the other Autodesk systems in our powerful, efficient pipeline. There was no way we could have achieved what we needed to on this project without Flare."

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