



AUTODESK UNIVERSITY 2016

DV23157

VFX Workflows for Architectural Visualization

Paul Nicholls

[Factory Fifteen](#)

Learning Objectives

- Learn to adopt film and VFX workflows into architectural visualization
- Gain insights into advanced custom-lighting setups within 3ds Max and V-Ray
- Learn how to control gigantic scene files within 3ds Max
- Learn the value of preproduction to make the most of your budget and location shoot time

Description

This class is intended for architectural visualizers and visual-effects artists alike. It aims to demonstrate Factory Fifteen's unique position between these 2 industries by showcasing 2 projects—a proof-of-concept science-fiction drama, and a film showcasing a stadium for the 2022 FIFA World Cup. Attendees will learn how Factory Fifteen's work in film has cross-pollinated the firm's work with architects, creating new digital workflows and sensibilities toward "selling architecture." As well as providing an overview, the speaker will go in detail into the filming and 3D post-production (using 3ds Max software and V-Ray) of one hero shot from each project, as well as illustrating planning and execution at every stage. The first shot involves the design, build, and animation of a mechanical robot and its integration into film footage. Shot 2 involves an elaborate time-lapse sequence over 8 years within a World Cup stadium, from tournament mode to legacy mode, dramatically replacing footage with an evolving digital sequence that leads us to the year 2030. This session features 3ds Max.

Your AU Experts

Paul Nicholls trained in architecture at Oxford Brookes and The Bartlett UCL, specialising in film and animation, winning several awards and nominations along the way, including selection in the 2012 Vimeo awards for his animation Somewhere. Graduating in 2011, Paul co-founded the directing collective and VFX studio Factory Fifteen and acts as a creative director. Paul's role and interest within Factory Fifteen range from production design, VFX Supervisor, art director, and director. In 2012 Paul acted as VFX supervisor for Kibwe Tavares and Factory Fifteen's renowned short film Jonah, shot on location in Zanzibar. In 2013 he co-directed another short film titled Chupun Chupai, shot across India. In 2014 he co-directed an award winning music video for The Bug and Ninja Tune, shot within London, combining live action and VFX, resulting in being selected for the Saatchi & Saatchi young directors showcase the following year.

In 2015 Paul produced and directed an immersive 360-degree video dome installation for the SAT in Montreal titled Cocoon, co-directed an animated interactive website for American Greetings, and directed a real-time visualisation concept titled La Geria.

Recently Paul also directed an ambitious live action VFX proof of concept titled Ana, for a new TV show for the History Channel, in collaboration with Raw TV. His studio Factory Fifteen completing the post production.

Concept

This class will look at two projects side by side. On the surface, they are very different; one is a proof of concept for TV (Ana), the other a film to advertise a stadium for the 2022 world cup (4th Precinct). Yet the creative and technical process delivering these two films was remarkably similar. Paul will attempt a simultaneous breakdown of the 2 films, showing one mega shot from each film in detail from storyboard to final composite.



4th Precinct



Ana

Storyboarding

All films and animations must start with storyboarding. Spending a decent amount of time here will ensure things work smoothly down the line with the client. The two projects had similar but notable differences to how this was created and shown to the client. Paul will talk about storyboard creation and 'boardomatics'.



4th Precinct



Ana

Previs

3D previsualisation is not just for full 3D animations. Paul will show how Factory Fifteen use previsualisations to plan almost every aspect of complex film shoots, to get the most out of budgets and tight filming schedules. Both projects had extensive previsualisation phases with the use of character animation.



4th Precinct



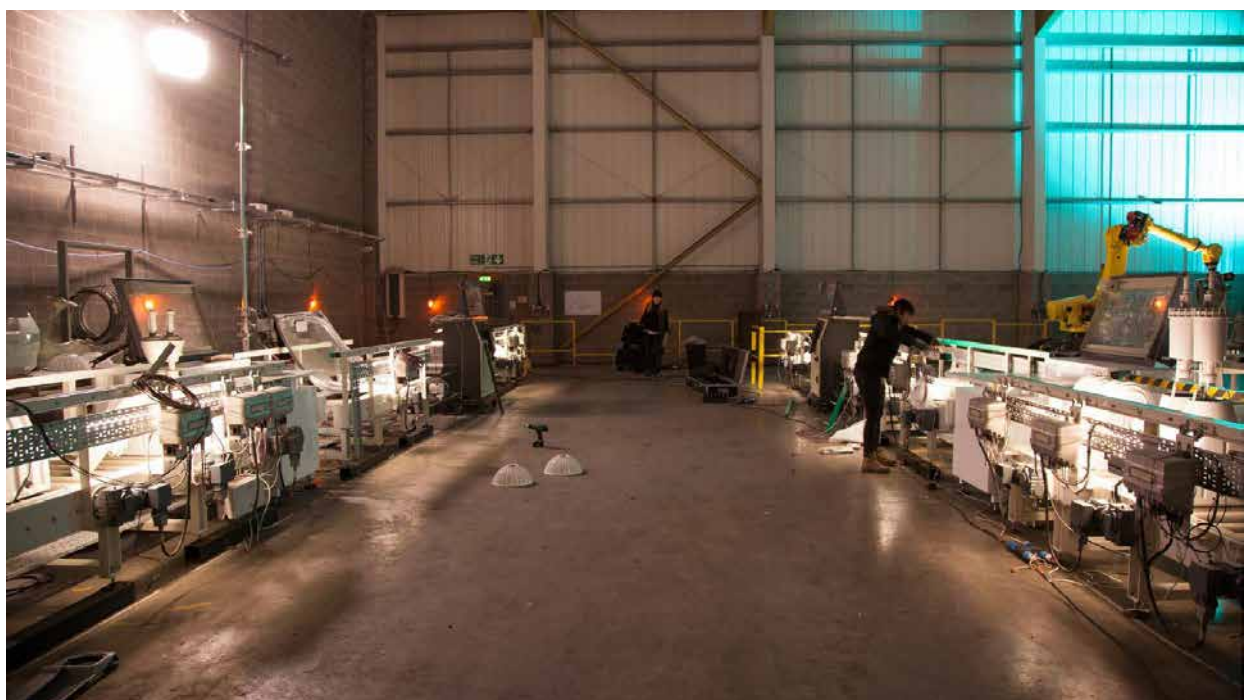
Ana

Shoot

Paul will talk about how Factory Fifteen organised two highly complex shoots for both projects, both completed in just two days. Paul will talk about how Factory Fifteen collaborate with production partners to ensure the highest quality product from a single vision set in the previsualisation phase. Both projects had interesting camera setups for the two shots Paul will break down in detail, each having their own challenges.



4th Precinct



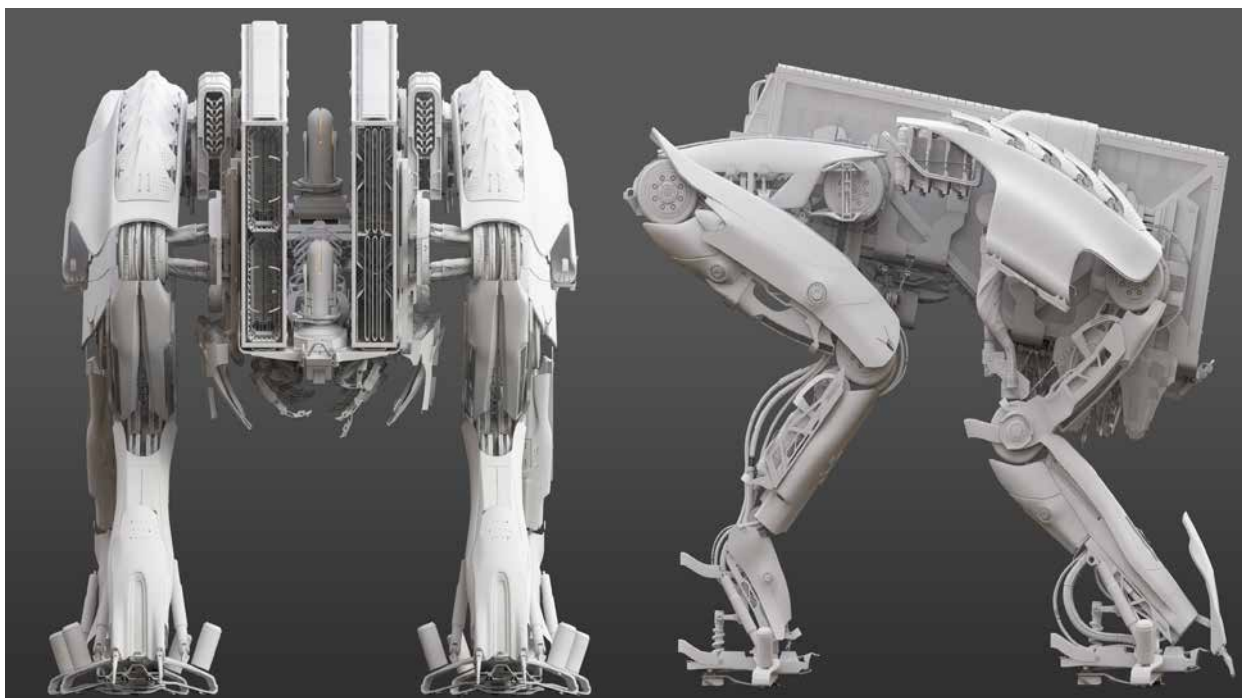
Ana

Modelling

Paul will explain how the design and modelling for each project was probably the biggest difference between the two overall. Paul will showcase the design and asset development from some of the hero models from TV pilot and how this was integrated into the pre-production phase, saving time in the post production phase.



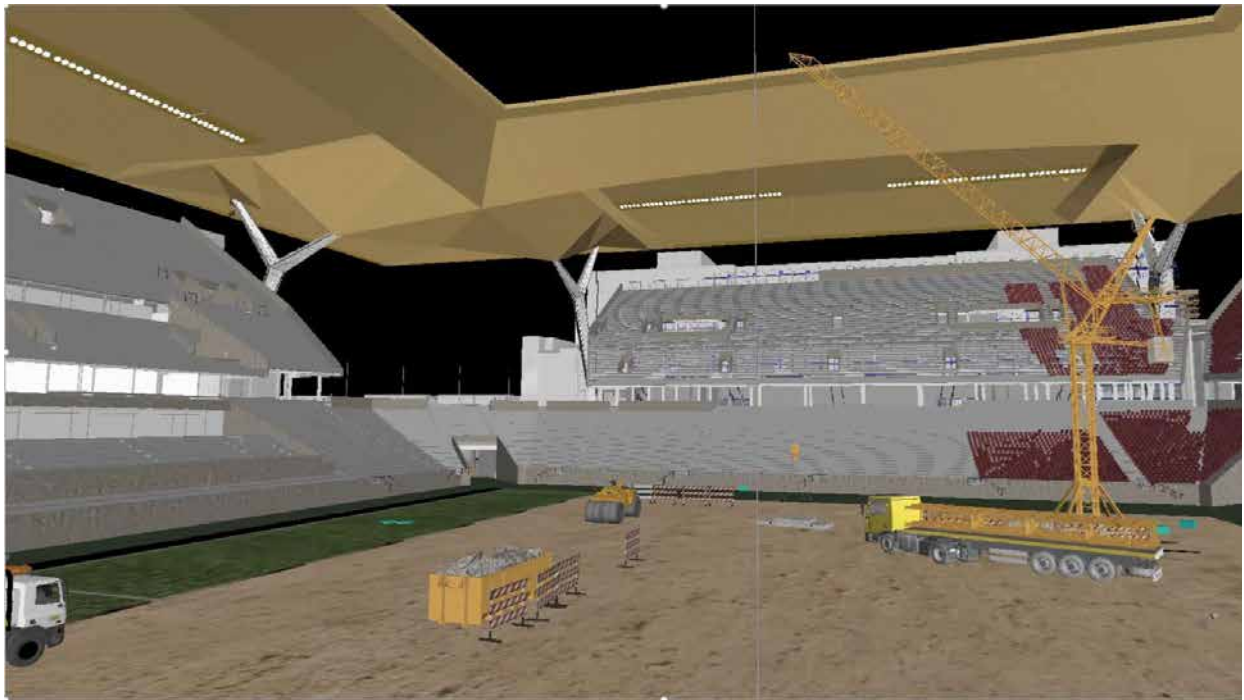
4th Precinct



Ana

Animation

Paul will illustrate how Factory Fifteen created the animation for the time-lapse sequence of the stadium film and the key animation components from the proof of concept TV show, namely the mech animation and robot arms.



4th Precinct



Ana

Rendering

Paul will show how both projects were lit with totally different strategies, with their own complexities dealing with animated lights and matching complex backplates from the footage.



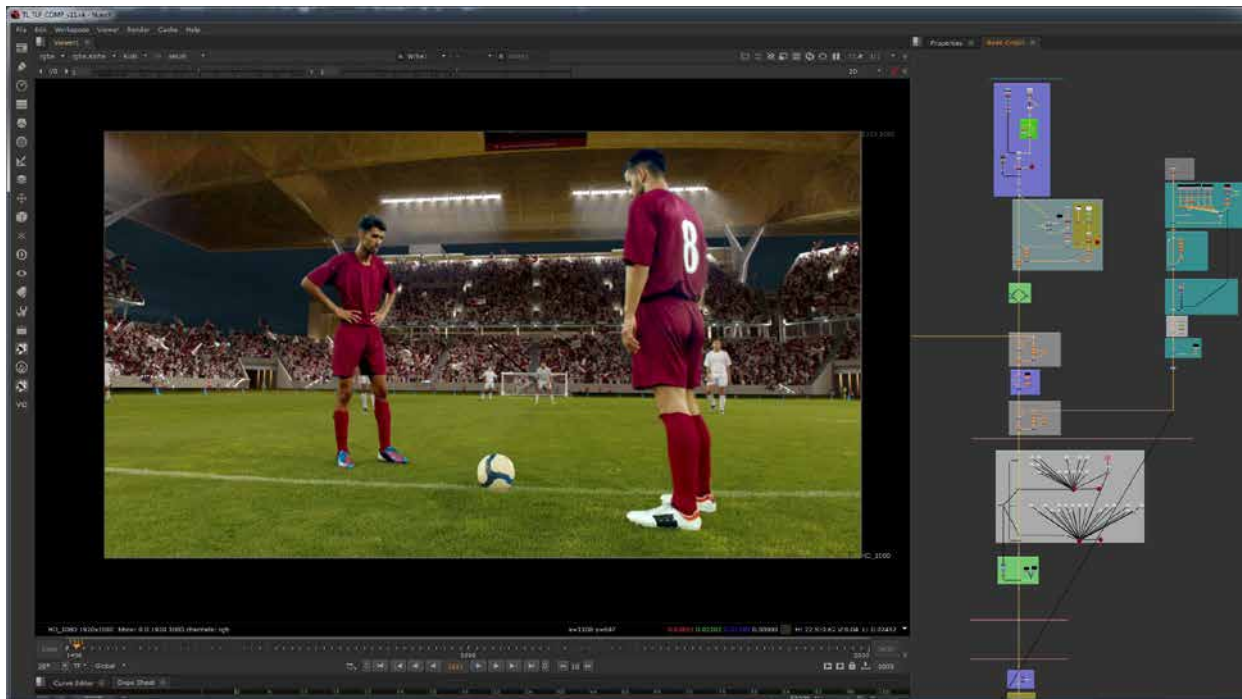
4th Precinct



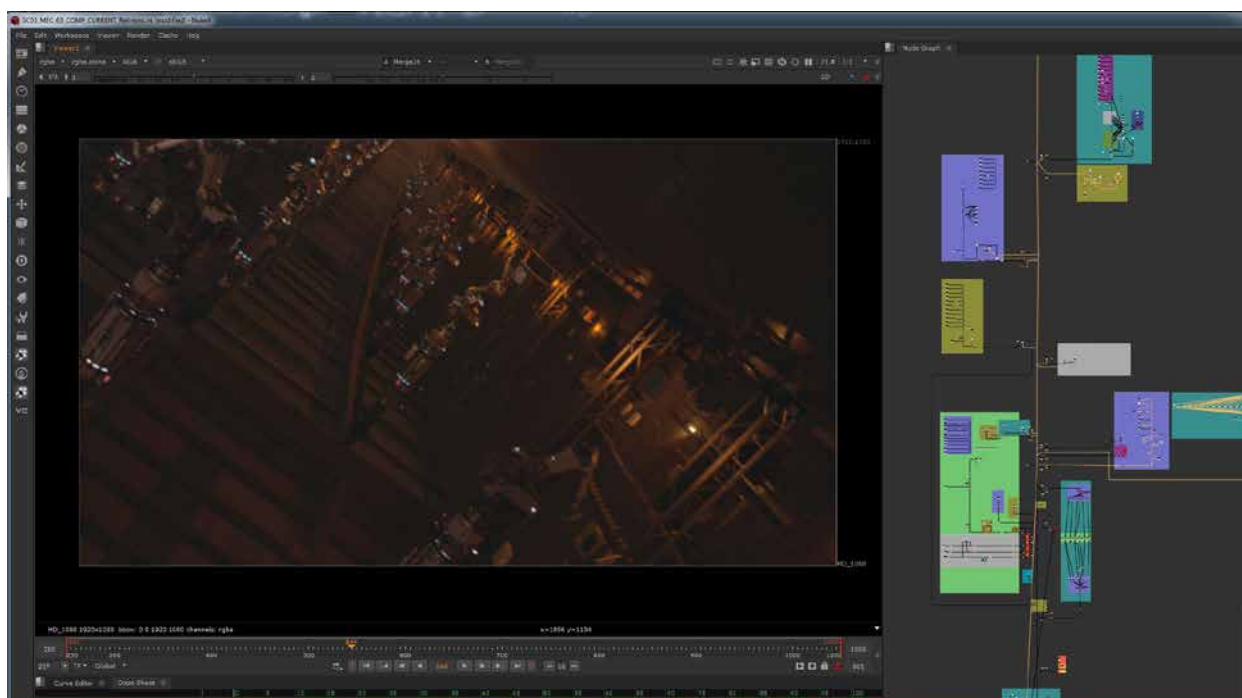
Ana

Compositing

Compositing brings all the elements together to create a as photo-real effect as possible. Paul will show how Factory Fifteen merged the real football action with the time-lapse fantasy using drone footage together and also how the robot mech and factory were augmented into the flickering footage of a warehouse.



4th Precinct



Ana

Final Films

At the end Paul will show both films in full to see how the shots sit with the rest of the piece.



4th Precinct



Ana