



natFX 3

Bionatics' vegetation-generation plug-in offers incredibly accurate digital foliage, flowers and trees, although accuracy comes at a price

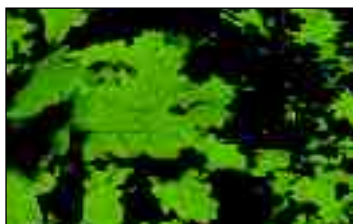
BY MAT BROOMFIELD

We may take plants for granted, but adding realistic vegetation to your 3D productions can make a world of difference. The problem is that plants are complicated, resource-hungry objects, and models that are suited to one type of project are very likely to be wholly unsuitable for another.

Computer games will use simple, billboard-style plants constructed from a few simple images, with transparency and normal maps to give the impression of complexity. However, plants in a rendered architectural walkthrough may comprise tens or even hundreds of thousands of polygons, and will stand up to scrutiny from every angle. *NatFX* is the one of the few programs that can generate plants for these disparate environments, and more.

The program comes as a plug-in for *3ds Max* (reviewed here) or *Maya*. Unlike other such software, it doesn't come with any actual plants as standard. Instead, it comes with a credit for the 'seeds' of ten plant species. While additional species can be purchased for \$15-\$69 each, its major competitors include dozens of plants for free. Bionatics contends that ten species is adequate for most projects, and points to the effort it invests to make sure its plants are the most realistic in the industry. However, we would argue that such absolute biological accuracy is not always as important as plants that just look visually 'right'. And, at up to \$69 each, you want to be sure that every plant you buy will be perfect. Even in the small sample we used, some were definitely better than others.

NatFX plants are selected within *Max* and placed just like any other primitive.



● With user-definable texture map resolution, plants are guaranteed to look great, no matter how close you move the camera



● *NatFX* isn't simply a great program for trees and bushes - there's also an extensive library of flowers available, too, which can add a touch of much-needed colour and texture to your scenes

Before placement, you can select the age of each one, the level of detail of its components, its size and the season. The program then generates an appropriate plant reflecting the effect of time and the changing seasons on its growth.

GROWING PAINS

Each time you generate a plant, it's randomly created using 'digital DNA' to spawn a new plant. However, we found that plants grown this way show far less variation from one other than those in rival packages. Moreover, whereas you can specify the complexity level of the trunk and bark of a tree, you have virtually no manual control over the parameters that control the form of its canopy (branch angle, twig density, leaf dispersion and so on). With other packages, such as *Xfrog* or the *OnyxTree* product line, you can choose the

exact parameters for each plant, enabling you to customise them for your needs.

NatFX includes a simple wind animation system: you specify the wind direction, speed and stability and it will quickly create an animation. This produced remarkably good leaf animation, but we were less convinced by the stem/trunk animation.

The *natFX* plants are all pre-textured and look excellent, even at very close range. More impressively, the program can also generate normal maps to give the impression of 3D complexity in low-poly games environments.

If price is more crucial to you than absolute accuracy, *natFX* may not be your first choice. However, for professional projects, the software is flexible, offering scalable processing costs, and is undoubtedly capable of generating excellent-quality results. ●

VERDICT

PROS

- Versatile processor load
- Very easy to use

CONS

- Limited variety
- Expensive

RANGE OF FEATURES 6

VALUE FOR MONEY 7

OVERALL 7



DETAILS

PRICE

- £558* / \$990 / €910
- *Currency conversion

PLATFORM

PC

RECOMMENDED SYSTEM

- Any PC capable of running *Max 4-8*, or *Maya 6* or *7*

MAIN FEATURES

- Generates trees of varying complexity
- User-specified poly count
- Can create billboard, hybrid or full 3D models
- Ultra-easy wind system
- User-specified texture resolution

DEVELOPER

Bionatics

WEBSITE

www.natfx.com

RELATED PRODUCTS

- *SpeedTreeMax 2*
Reviewed: Issue 45
- *OnyxTree 6*
Reviewed: Issue 51