

VASTPARK DEVELOPER INTRODUCTION

FRAMEWORK v1.5 SDK



DEVELOPERS

VastPark's VastWorlds platform is an extensible lightweight platform for creating virtual worlds but it's more than just that!

VastWorlds is a framework for creating virtual worlds and immersive and multiuser applications. The framework handles the hard work of content distribution, multiuser networking and visualization and provides easy ways for you to extend the platform and create reusable content that can work across any application built on the framework.

VastWorlds is also an open platform that gives you what you need to create virtual worlds and mini-applications known as widgets. It features a range of software tools for publishing existing assets (such as 3D models and animations, sounds, skyboxes, videos, plugins and more).

<http://vastpark.org/wiki/vp/Developers>

VASTSCRIPT

As of February 2010, VastScript can now (theoretically) support multiple scripting languages with IMML now enabling the developer to specify the scripting language. Support for Python is expected in a future release. Currently, scripting can be written in LUA.

<http://www.lua.org/pil/>

IMML

Immersive Media Markup Language, or IMML describes a 3-D scene composed of different types of media objects, it is used to capture interaction and activity for use in multi-user situations. IMML is lightweight enough to use for real-time 3-D environments.

Continue reading about IMML online in the VastPark developer zone ([link](#)).

Tutorials

Learn how to use IMML from our online tutorials and begin creating your own virtual worlds. We've created a number of video tutorials that will give you an introduction to the VastPark Platform. You can view the whole series using the link below.

<http://vastpark.org/wiki/vp/Tutorials>

Advanced users can view examples which demonstrate how Imml can be used to create a highly interactive worlds can be found here.

<http://vastpark.org/wiki/vp/Tutorials#Tutorial-series-Virtual-Worlds-Made-Easy>

Included in this SDK are a few of our example files that demonstrate some of features of Vastpark. In the VastPark player select View > Source to view the Imml code behind each of the following worlds to gain a better understanding of how they work.



Single User Worlds

Setting up Single user worlds

To begin exploring the VastPark worlds you will need to install the VastPark player, available at the link below. Once you have downloaded the installer, run it and follow the wizards instructions.

<http://www.vastpark.com/resources/downloads.html>

If you are unfamiliar with the VastPark Player please view our introduction video here:

<http://vimeo.com/31526817>

Speaking avatar Demo

Filename: lipsync-audioorb-example.pimml

Communication between users is an important part of virtual worlds. In this demo we show how lip sync can be hooked up to a user's avatar. The audio orb is all representing the sound levels.

Instructions:

With your microphone plugged in open up the park. Once you begin to speak the avatar's mouth will move in time with your voice.



Point to walk demo

Filename: bot-walk-example.pimml

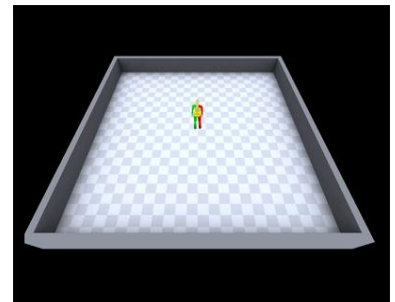
This demo contains many advanced but highly useful functions such as scripting avatar movements, dynamically creation of objects and mouse click detection.

In this demo we use mouse clicks to move the avatar around the environment instead of being controlled with the keyboard.

If you look at the code for this world you will see that the avatar is being moved via a dynamically created timeline. From this example you can see how an avatar could be pre-scripted. Developers' pre-script avatar movements for a number reason, most commonly for creating Non-player characters or NPC. These are avatars who act as guides or helpers in the virtual world.

Instructions:

Simple click anywhere on the ground to have you avatar walk to this position.



Multi-User demos

Setting up the WorldServer and multi-user worlds

First you will need to download the latest server and install on the PC you wish to act as you server. This can be your own machine.

<http://www.vastpark.com/resources/downloads.html>

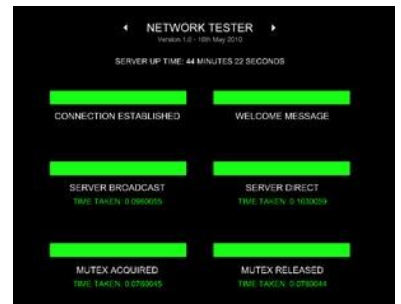
This tutorial will help with getting your server up and running and getting in to your hosted world.

<http://vimeo.com/31118758>

localhost/network-tester

Note: Ensure the “Network-tester” folder has been placed in your servers host folder.

The network-tester provides valuable information about your server and a client’s ability to communicate with it. In this image we can see that the server was successful in all the tests. If any of the boxes were red it would indicate that there was a problem.



Hello world

Note: Ensure the “Hello-world” folder has been placed in your servers host folder.

This demo is a basic example of how multiple users can explore and collaborate in a virtual world.

Instruction:

- Use the arrow keys or WASD to move your avatar around the environment.
- Keys 7, 8 and 9 will trigger a gesture animation.
- Hover over another user with your mouse cursor to see the user’s name.



Beach-house world

Note: Ensure the “Beach-house” folder has been placed in your servers host folder.

This world is a multiuser environment with voice capabilities, a gestures button and a laser pointer.

Instruction:

- Use the arrow keys or WASD to move your avatar around the environment.
- Keys 7, 8 and 9 will trigger a gesture animation.
- Press the microphone button to mute and unmute you microphone.
- Click the gesture button to wave or right click for more options.
- Press the laser button to activate/deactivate your laser. The laser is visible to all users and will follow your mouse. Right click for more options

