# System Requirements



# System Requirements for Carmenta Engine 5.11

#### CARMENTA ENGINE FOR WINDOWS

#### **Operating Systems:**

Windows 7 (32-bit and 64-bit), Windows 8.1 (64-bit) and Windows 10 (64-bit).

Both 32-bit and 64-bit versions available.

#### Graphics device requirements for hardware acceleration:

Using OpenGL rendering requires a device supporting OpenGL 1.1.

The Radar Plot Extension requires OpenGL 1.5.

The GlobeView component, the terrain warning functionality and the hardware-accelerated effects require OpenGL 3.0.

Using DirectX rendering requires a device supporting DirectX 9.1.

#### Language requirements:

.NET API: .NET Framework 4 or later.

Java API: Java 7 or later.

C++ API: MSVC 10 (2010) or later.

# Integrated Development Environments:

Support is provided for Microsoft Visual Studio 2010, 2012, 2013, 2015 and 2017 (C++ and C#).

Other C++ IDEs that use the Microsoft C++ compiler (MSVC) can also be used.

Java developers can use NetBeans or Eclipse.

# CARMENTA ENGINE FOR ANDROID

#### CPU:

ARMv7 compatible (32-bit).

ARMv8 compatible (64-bit).

x86-64 compatible (64-bit).

#### **Operating System:**

Android 4.0.3 or above (32-bit).

Android 5.0 or above (64-bit, Xamarin apps).

### Graphics device requirements for hardware acceleration:

Using OpenGL rendering requires a device supporting OpenGL ES 2.0.

Using GlobeView, TerrainWarningOverlay and Effects requires a device with full support for OpenGL ES 3.0. Note that not all OpenGL ES 3.0 implementations support these features; Carmenta Support can provide an up-to-date list of Android devices which have been tested and verified to work well.

#### **Integrated Development Environments:**

Support is provided for Android Studio 2.3 or later (Java development) and Microsoft Visual Studio 2017 (Xamarin development).

#### CARMENTA ENGINE FOR LINUX

#### **Operating Systems:**

Ubuntu 14.04 LTS and 16.04 LTS.

Red Hat Enterprise Linux 6 and 7.

SUSE Linux Enterprise 11 and 12.

64-bit version generally available. 32-bit version available on request.

#### Graphics device requirements for hardware acceleration:

Using OpenGL rendering requires a device supporting OpenGL 1.1 and GLX 1.3.

The Radar Plot Extension requires OpenGL 1.5.

The GlobeView component, the terrain warning functionality and the hardware-accelerated effects require OpenGL 3.0.

#### Language requirements:

Java API: Java 7 or later.

C++ API: GCC 4.3.4 or later.



