



# Carmenta Engine 5.17

### **Carmenta Engine for Windows**

#### **OPERATING SYSTEMS:**

- Windows 10, 64-bit.
- Windows 11.

# GRAPHICS DEVICE REQUIREMENTS FOR HARDWARE ACCELERATION:

- Using OpenGL rendering requires a device supporting OpenGL 3.0.
- Using DirectX rendering requires a device supporting DirectX 11.

### LANGUAGE AND FRAMEWORK REQUIREMENTS:

- .NET API: NET 6.0 or later, or .NET Framework 4.7.2 or later. The .NET MAUI map control requires .NET 8.0 or later.
- Java API: Java 11 or later.
- C++ API: Visual Studio 2019 or later. When using Qt or QT Quick, Qt version 5.15 or later should be used.

### INTEGRATED DEVELOPMENT ENVIRONMENTS:

- Support is provided for Microsoft Visual Studio 2019 and 2022 (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 on Linux**

### **OPERATING SYSTEMS:**

- Ubuntu 22.04 LTS and 24.04 LTS.
- Red Hat Enterprise Linux 8 and 9.
- SUSE Linux Enterprise 15 SP4.
- On Linux x86-64 and ARMv8 compatible 64-bit CPUs are supported.

## GRAPHICS DEVICE REQUIREMENTS FOR HARDWARE ACCELERATION:

- Using OpenGL rendering requires a device supporting OpenGL 3.0 and EGL 1.4.
- When using OpenGL ES on Linux, the device needs to support OpenGL ES 3.0 or later.

### LANGUAGE REQUIREMENTS

- Java API: Java 11 or later.
- C++ API: GCC 7.5 or later.
- When using Qt or Qt Quick, Qt version 5.15 or later should be used.
- .NET API: .NET 6.0 or later.

### **Carmenta Engine for Android**

### **SUPPORTED DEVICES:**

 Android devices running Android version 9.0 or above and have an ARMv8 compatible 64-bit CPU or an x86-64 compatible 64-bit CPU.

# GRAPHICS DEVICE REQUIREMENTS FOR HARDWARE ACCELERATION:

 Using OpenGL rendering requires a device with full support for OpenGL ES 3.0. 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 for Java projects and Visual Studio 2022 or later for .NET projects.

## LANGUAGE AND FRAMEWORK REQUIREMENTS JAVA API:

- · Java 11 or later.
- C++ API: NDK r23 or later.
- When using Qt Quick, Qt version 6.2 or later should be used.
- .NET API: .NET 6.0 or later.

### For further information, please contact us at:

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