



Acerba

TECHNICAL PRESENTATION

Requirements

- ▶ CMake
- ▶ Git
- ▶ C++ 11 Compiler
 - ▶ Visual Studio 2015 - 2017
- ▶ Acerba Template
 - ▶ <https://github.com/Acerba/Acerba-Template>

Setup

- ▶ Download and Unzip Acerba-Template
- ▶ Initialize Git
- ▶ Run CMake
 - ▶ CMake adds Acerba as sub-module and keeps it up to date.

Acerba-Template Directories

- ▶ src
 - ▶ Source Files
- ▶ include
 - ▶ Header files
- ▶ assets
 - ▶ Resources

File Formats

- ▶ Image
 - ▶ Read: JPG, PNG, TGA, BMP, PSD, GIF, HDR, PIC
 - ▶ Write: PNG
- ▶ Audio
 - ▶ Read: WAV, OGG
- ▶ Font
 - ▶ Read: TTF
- ▶ JSON (rapidjson)
- ▶ SpriteSheet <http://gamedevutils.com/>

Example: Input

```
// Keyboard //
#include <Ace/Keyboard.h>
ace::Keyboard::GetKey() == ace::KeyCode::W;

// Mouse //
#include <Ace/Mouse.h>
ace::Vector2 mousePosition = ace::Mouse::GetPosition();
ace::Mouse::GetButton() == ace::MouseButton::Left;

// Touch //
#include <Ace/Touch.h>

// Returns number of active fingers
ace::Touch::GetCount();
ace::Touch touch = ace::Touch::GetTouch(0);
ace::Vector2 touchPosition = touch.GetPosition();
float touchPressure = touch.GetPressure();
```

Example: Files & Audio

```
#include <Ace/Image.h>

// Loading image
ace::Image exampleImage(0xFFFFFFFFU);

if (ace::File::Exists("exampleImage.png"))
{
    exampleImage = ace::Image(ace::File("exampleImage.png"));
}

// Writing image
exampleImage.WritePNG("newExampleImage.png");

#include <Ace/Audio.h>

// Loading audio
ace::AudioClip exampleSound;
bool useAudio = false;

if (ace::File::Exists("exampleSound.wav"))
{
    useAudio = true;
    exampleSound = ace::AudioClip({ "exampleSound.wav" });
}
```

Example: Graphics

```
ace::Window window("Acerba Window", 1024, 768);

ace::Sprite sprite;
sprite.Rotate(90);
sprite.Colorize(ace::Color32(0.0f, 0.0f, 1.0f, 1.0f));

window.SetClearColor(ace::Color32(1.0f, 0.0f, 0.0f, 1.0f));

// Keeps program running
while(window)
{
    window.Clear();

    ace::GraphicsDevice::Draw(sprite);

    window.Present();
}
```


Example: Platform & Debug only code

```
#include <Ace/Ace.h>

#if ACE_WIN
    // Windows only code.
#endif

#if ACE_ANDROID
    // Android only code.
#endif

#if ACE_DEBUG
    // Debug only code.
#endif
```

More Examples

- ▶ Acerba/Example/Demos

Android

Very Short Info

- ▶ Requires
 - ▶ SDK (Android Studio or Standalone)
 - ▶ NDK
 - ▶ Make (gnuwin32)
- ▶ About Paths
 - ▶ **NO SPACES** (C:/Program Files/NDK, doesn't work)
 - ▶ **C:/Android/NDK**
- ▶ We will give you more info later with better documentation for Android