10-bit per color(10bpc) demo application

Release Notes

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Contents

[1.0 Introduction 4](#_Toc91676420)

[2.0 Get Started 5](#_Toc91676421)

[3.0 Acknowledgement 6](#_Toc91676422)

# Introduction

This application is a demo for 10bpc image rendering.

## Terminology

Table 1. Terminology

| Term | Description |
| --- | --- |
| HDMI | High Definition Multimedia Interface |
| DP | Display Port |
| 10bpc | 10-bit Per color |
| TGL | Tiger Lake |
| GPU | Graphics Processing Unit |

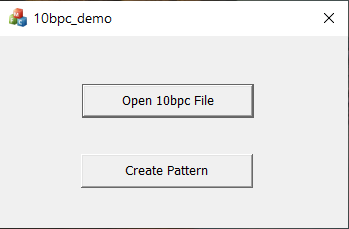
# Get Started

1. The development software and hardware environment as below.

|  |  |
| --- | --- |
| Hardware | * CPU: Intel® Core™ i7-1165GRE @2.8 GHz * Monitor: DELL UP2720Q supports 10bpc feature |
| Software | Windows 10 Enterprise |
| DirectX 12 |
| Windows SDK 10.0.19041.0 |
| Visual Studio 2019 16.11.7 |

1. Run the demo

The application 10bpc\_demo is used to validate 10bpc effect on intel CPU.

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* + “Open 10bpc File” button

It loads and renders an image which includes 10bpc content, then 10bpc effect can be seen on the monitor which supports 10bpc.

You can get the image from <https://github.com/jursonovicst/gradient>.

* + “Create Pattern” button

It creates a grey scale image by HLSL. The image includes 8-bit and 10-bit content. Comparing the 8-bit and 10-bit content in the image, we can verify if the 10bpc effect is working.

# Acknowledgement

[1] This project is developed base on “Direct3D Game VS project templates” the github link https://github.com/walbourn/directx-vs-templates/tree/master/d3d11game\_win32\_dr