

# I1Display3 Software Development Kit ("i1d3SDK") Readme Version 1.4

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## Introduction

This document describes the i1Display3 SDK ("i1d3SDK") package. Release Notes and Documentation on the use and Application Programming Interface ("API") are not included in this document but are provided along with the SDK.

The i1d3SDK is comes in a zip (Windows) or dmg (Mac OS X) file that contains all required software, support files, documentation and sample programs. Such sample programs are provided as ready-to-run executables as well as Visual Studio 2008 (Windows) and XCode 4.5 (Mac OS X) projects to allow the user to modify, build and test these programs.

## SDK content overview

- Documentation
  - contains SDK documentation and information such as:
    - API Documentation (API Doc.html)
    - This document (ReadMe.pdf)
    - Release Notes (Release Notes.txt)
    - And others
- Examples
  - contains example projects
  - pre built versions of the example projects (“bin” folder)
- i1d3 Support Files
  - contains the calibration support files
- Include
  - contains the SDK’s header files
- Libs (Windows)
  - contains the SDK’s library and stub library files
- Frameworks (Mac OS X)
  - contains the i1d3SDK.framework

## Library

The i1d3SDK DLL library contains software that interfaces to the i1Display3 Display devices.

## Windows

These files are necessary to build an application that uses the i1d3SDK:

- i1d3SDK.h
- i1d3SDK.lib (Win32) or i1d3SDK64.lib (Win64)
- i1d3SDK.dll (Win32) or i1d3SDK64.lib (Win64)

i1d3SDK.dll and i1d3SDK64.dll are necessary to execute the application and must be included in the same folder as the application or placed on the DLL search path.

## Mac OS X

These files are necessary to build an application that uses the i1d3SDK:

- i1d3SDK.h
- i1d3SDK.framework

The i1d3SDK.framework must be put in the Frameworks folder inside the application bundle (see example application). The framework contains i386 and x64 compatible binaries.

## **Installation**

### **Windows**

1. Uninstall any previous installations of the i1d3SDK prior to this release. Make sure there are no more i1d3SDK accessible through PATH variable.
2. Unzip the SDK to a location of your choosing. To run the demo applications and build the demo projects in place, maintain the folder structure.

### **Mac OS X**

1. Copy all folders of the mounted SDK \*.dmg file to a location of your choice. Keep the folder structure to run and build the demo application and project in place.

## **Run pre-built applications**

To run the command line demonstration application, plug in the i1Display3 and run the i1Display3CmdDemo program from within the “bin” (“bin/Release” for Mac OS X respectively) folder. The program will then look for any attached i1Display device and attempt to open it and perform some measurements.

The MFC demonstration application (Windows only) will connect to the i1Display after the “Open” button has been pressed and disconnect after a click on the “Close” button.

*NOTE: Both command line and MFC demo applications will only function with i1Display Pro devices with a generic OEM Product Key (XRCE-I1D3+OEM). Change the key in the source code to run the sample applications with your own vendor specific key.*

The applications are not signed and may display a security warning on execution.

## **Build example projects**

### **Windows**

To rebuild the sample applications, open the \*.vcproj or \*.sln files found in the project directories within the “Examples” folder. These project files were created Visual Studio 2008 but should also build under Visual Studio 2010/2012/2013.

## Mac OS X

To rebuild the sample application on Mac OS X, open the \*.xcodeproj file found in the project directory within the “example” folder. The project file was created with XCode 4.5 but should also build with earlier or later versions.

## Use of support files

For how to use the support files within your application refer to the source code of the example applications. The pre-built applications will search for the “i1d3 Support Files” folder in the parent directory as can be seen in the source code itself.

The support files provided support a number of different display technologies. The supported technologies are listed in the I1D3Mapping.txt file and are as follows:

```
3,CCFLFamily_07Feb11.edr
6,WGCCFLFamily_07Feb11.edr
9,WLEDFamily_07Feb11.edr
12,RGBLEDFamily_07Feb11.edr
15,OLEDFamily_20Jul12.edr
17,PlasmaFamily_20Jul12.edr
18,RG_PhosphorFamily_25Jul12.edr
22,ProjectorFamily_07Feb11.edr
```

The number at the beginning of the line is the technology type identifier. If for example, your display is a White LED-backlit display you would use the WLEDFamily\_07Feb11.edr file (line beginning with '9') above. The demonstration program, as delivered contains an example of how the programmer can select this calibration. For more detailed information see “i1Display Pro Calibration Management” document which is separately available on the developer’s directory.

## Questions & Answers

### *Question:*

- I have an older version of the SDK. Will I have to rebuild my application in order to update the i1d3SDK library with the new one provided by this SDK?

### *Answer:*

- If you are going to make use of the new features or modes, the answer is yes, you will have to rebuild.
- If you are simply updating the i1d3SDK library or Framework and support files, there is no need to do so.

*Question:*

- What do I need to do if I want to update the support files of an existing application?

*Answer:*

- Simply replace the old support files with the new ones provided.

*Question:*

- Where to put the “i1d3 Support Files” so my application can find them?

*Answer:*

- Refer to the source code of the example projects provided.

*Question:*

- What do I need to do if I want to update the support files of an existing application?

*Answer:*

- Simply replace the old support files with the new ones provided.

*Question:*

- What devices are supported?

*Answer:*

- See section *Compatible Platforms and Products* of Release Notes document.

*Question:*

- What measurement mode do I use for which display type?

*Answer:*

- See documentation of `i1d3MeasMode_t` enum in API Documentation or i1d3SDK.h file.