

1. Usage

1.1. Installation Requirements

This application has the same hardware requirements for the computer running the application as the Microsoft Kinect 2 SDK.

These are, at the time of writing:

- Windows 8 or 8.1 (but not any beta version of 10)
- GPU (discrete or integrated) compatible with DX11
- 4GB of RAM or more
- CPU with at least 4 threads
- Compatible USB 3.0 Controller.*

Other required hardware requirements:

- Kinect 2 with adapter for use with a USB 3.0 port and an external power supply
- Tripod to hold the Kinect 2 vertically

Other optional hardware:

- Projector
- Surface for the projector to backlight

Software requirements:

- Kinect SDK 2.0
 - <http://www.microsoft.com/en-us/download/details.aspx?id=44561>
- Visual Studio 2013 (tested with Ultimate, unknown if Express is sufficient)
 - <https://www.visualstudio.com/en-us/downloads/download-visual-studio-vs.aspx>
- Microsoft Speech Platform - Software Development Kit (SDK) (Version 11)
 - <http://www.microsoft.com/en-gb/download/details.aspx?id=27226>
 - Required for compilation
- Kinect for Windows SDK 2.0 Language Packs - enUS
 - <http://www.microsoft.com/en-us/download/details.aspx?id=43662>
 - Only enUS has been confirmed to work
 - enGB does NOT work for some unknown reason at the time of writing
 - Required for runtime
- Microsoft Speech Platform - Runtime (Version 11)
 - <http://www.microsoft.com/en-us/download/details.aspx?id=27225>
 - Required for runtime
- .NET 4.5 Platform installed
 - <https://www.microsoft.com/en-gb/download/details.aspx?id=30653>

** The Kinect 2 requires a compatible USB 3.0 Controller. The amount of bandwidth the Kinect requires is higher than some Controllers are capable of. To make sure that the Kinect can stream all the data, use the Kinect 2 Configuration Verifier that is included with the Kinect 2 SDK. If the final section "Verify Kinect Depth and Color Streams" gives a green tick, then the USB 3 Controller is capable of sending the required data for this application.*

1.2. Compilation Instructions

Simply open the .sln file using Visual Studio 2013. If everything has been setup correctly, you can start the application and begin using it.

If you get compilation errors, make sure that everything in the Installation Requirements section is fulfilled.

If you get a “Kinect not available!” when the application is running then use the Kinect Configuration Verifier to make sure that the USB 3.0 Controller you are using is compatible.

If you get a “Voice Commands Unavailable” when the application is running, then you are missing the runtime elements of the Microsoft Speech Platform. Refer to the Installation Requirements

1.3. Voice Commands

There are a number of voice commands available to the user. Here is the list of these commands.

Kinect Open TouchDevelop	Opens TouchDevelop in the default browser
Kinect Calibrate Enable	Begins the calibration process
Kinect Calibrate Disable	Cancels the calibration process
Kinect Cursor Enable	Allows the application to use the Kinect to control the position of the cursor
Kinect Cursor Disable	Prevents the application to use the Kinect to control the position of the cursor, clicking or scrolling
Kinect Click Enable	Allows the application to use the Kinect to control the position of the cursor and to control left clicks
Kinect Click Disable	Prevents the application to use the Kinect to control the clicking
Kinect Scroll Enable	Allows the application to use the Kinect to control the position of the cursor and to control wheel scrolling
Kinect Scroll Disable	Prevents the application to use the Kinect to control the wheel scrolling
Kinect Depth Enable	Launches the Depth Mode. If Multi Mode is open, it will be closed
Kinect Depth Disable	Closes the Depth Mode if it is open
Kinect Multi Enable	Launches the Multi Mode. If Depth Mode is open, it will be closed
Kinect Depth Multi	Closes the Multi Mode if it is open