# the Operating System

## the go between



### A Quick Guide

(mainly Apple iOS)

## Introductory Level

Designed for iPad. Applicable to other devices.

Revised December 2016

# OS - Operating System

## What is an OS?

An **Operating System (OS)** is software that controls the hardware on behalf of the end user. The end user interacts with the computer through software applications designed to run on that particular operating system. The OS manages all of the computer's hardware and software that runs on it. It coordinates access to the central processing unit (CPU), memory and storage. It provides the platform for the various software applications that the user needs to use.
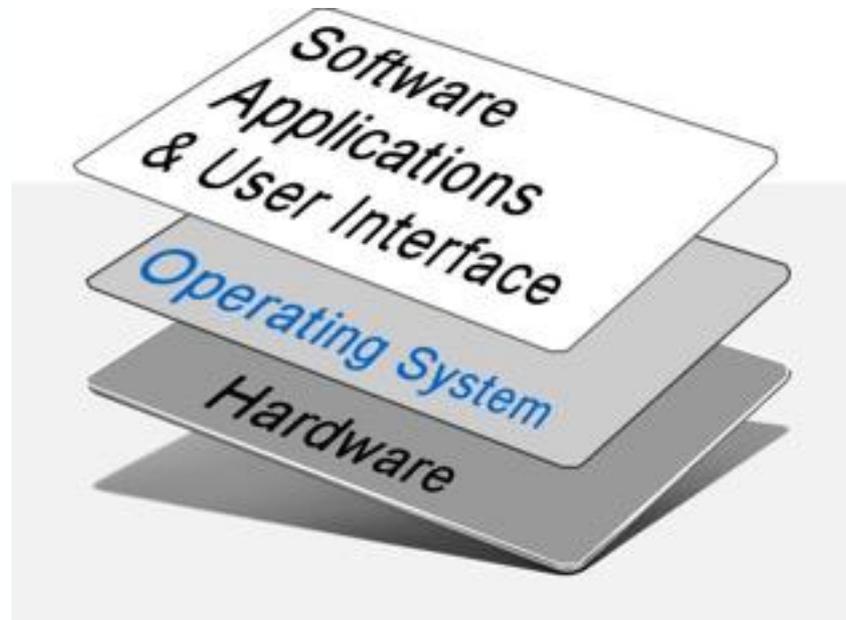


Yes, the **Apple iPad** is a miniaturised computer, and the i**OS** operating system (currently iOS 10) has been designed by Apple to provide all of the services required of an Operating System at this scale. Software developers build software applications (**apps**) to run on this platform. An **app** built to run on iOS will not run on another OS (such as Android) unless it has been programmed to do so. Apple's iOS will not normally run on another platform.

# Operating Systems

… in general

## Operating the System

Depending on the hardware platform, a number of different Operating Systems are in use these days for both desktop and mobile computers (smartphones, tablets and so forth)

### Apple

In recent years Apple has been releasing a new version of **OS X** generally once every year (since about the year 2000). Now the current version is **macOS Sierra**. OS X (renamed **macOS** in 2016) runs on desktop Apple computers.



macOS Sierra

All versions of the **iPad**, **iPhone** and **iPod Touch** run iOS (which until 2010 was called 'iPhone OS'). The current version is i**OS 10** (released around September 2016).

### Microsoft

Roughly speaking, the **Windows Surface** and **Surface Pro** tablet computers run Windows 8, 8.1 and **Windows 10** (the same for Windows desktop and laptop computers). Windows is the OS.

Windows 10

### Linux

Based on the **UNIX** Operating System, the many versions of **Linux** can be seen everywhere, from most of the world's web-servers, to most hand held smartphones running the **Google Android OS**. **Mint** is a popular Linux OS based on **Ubuntu**. Even NASA uses Linux in robotics on the Mars rover and elsewhere.

Linux Mint

Android

# Access to iOS

## Controlling IOS

**iOS on the iPad, iPhone and iPod Touch**. With iOS, like other mobile device Operating Systems, a person can access and control certain functions of the OS through **Settings**. Certain things such as Software Updates, Accessibility, File Storage, Security, Keyboard, Date & Time can all be customised through the **Settings** app under **General**.

Tap the **Settings** icon on Home screen to access and control certain features of iOS.

Different device settings can be controlled here to suit one's needs

iOS version

| Settings | | General | About | |
|---|---|---|---|---|
| Wi-Fi | ThomsonF1FFCB | Songs | | 4 |
| Bluetooth | On | Videos | | 0 |
| | | Photos | | 86 |
| Notifications | | Applications | | 41 |
| Control Centre | | Capacity | | 2.5 GB |
| Do Not Disturb | | Available | | 1.1 GB |
| General | | Version | | 9.2 (13C75) |
| Display & Brightness | | Model | | MC705B/A |
| Wallpaper | | Serial Number | | DKVL40H7DJ8T |
| Sounds | | Wi-Fi Address | | E4:8B:7F:43:28:36 |
| Passcode | | Bluetooth | | E4:8B:7F:43:28:37 |
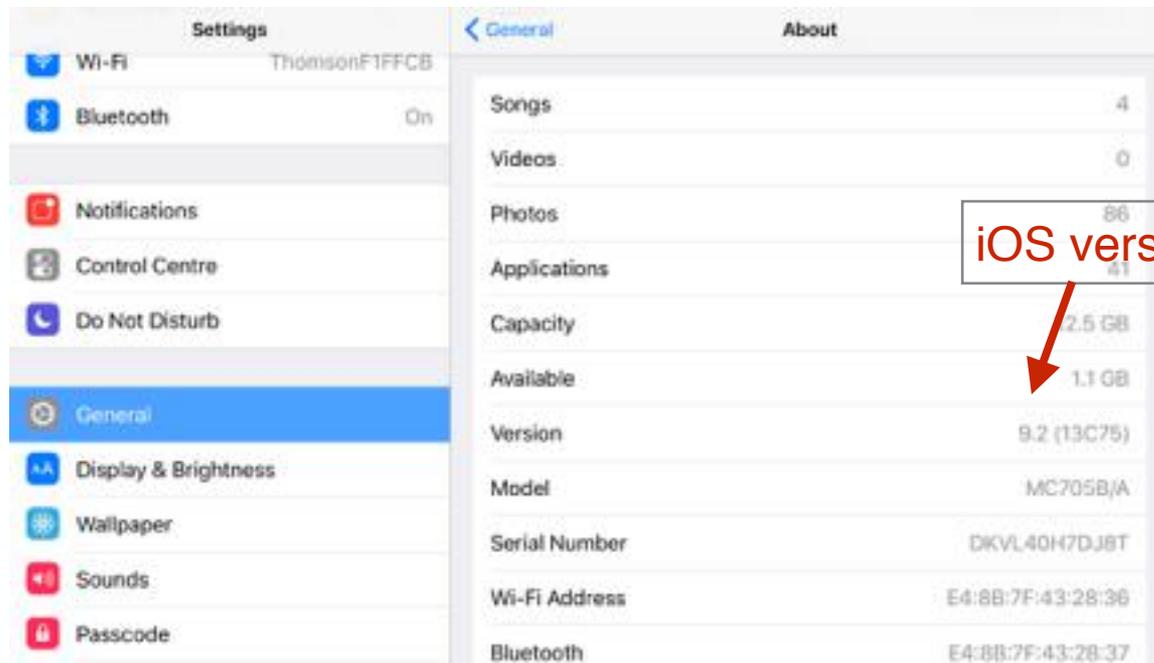
# The View from Above

## Graphical User Interface GUI

iOS provides a **GUI** interface (as opposed to command line) and is designed to be as user friendly as possible. Almost everything about the OS is designed with the end user in mind because the end user cannot speak computer language. Touch icons provide access to apps and their features. Most actions can be initiated by the use of touch. iOS can interpret various touch signals and carry out the desired action on behalf of the user,
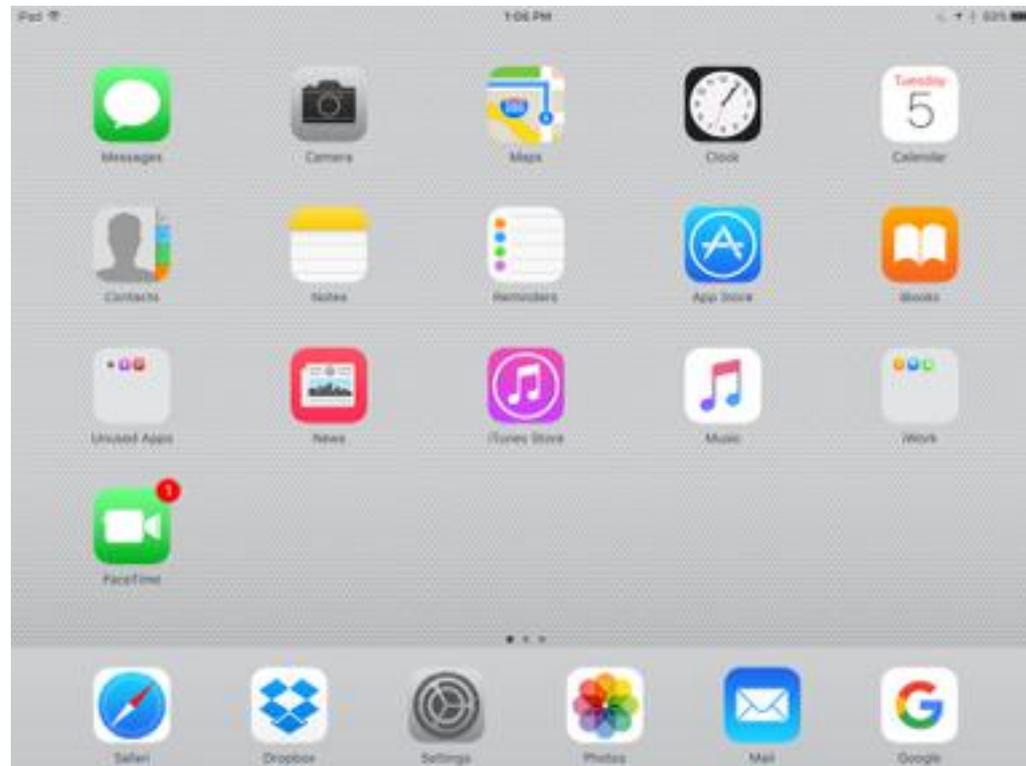


Home Screen on an iPad 3 with iOS 9 showing touch icons and the dock (bottom)

# iOS Apps

## Settings

For directly accessing and changing basic configuration information of apps on Apple mobile devices (including both Apple and third party Apps)

## Appstore

Mainly for purchasing and installing apps. Also, for managing **iTunes** credit and account information, as well as **Software Updates** for individual apps.

## Mail

Email client. Send and receive email and manage **Mail** accounts.

## Photos

For managing photos, both from the inbuilt **Camera** app and those imported from **iCloud** or elsewhere.

## Safari

Web browser for accessing and viewing web pages, saving and sharing content etc.

*For more detailed information about apps on iOS, please see the tutorial '**iPad Apps'***

# OS - Summary

* **Operating System (OS)** - software that controls the computer hardware for the end user

* Provides the platform for various software applications (**apps**) on the computer/device

* All versions of the **iPad**, **iPhone** and **iPod Touch** run i**OS (**created by **Apple)**

* **Mac OS X (macOS** as of 2016**)** runs on **Apple iMac** (desktop) and **MacBook** (laptop) computers

* The Google **Android OS** runs on most non Apple smartphones and tablets

* One can access and control certain functions of the OS through **Settings**

* **Graphical User Interface (GUI)** provides the user with familiar functions and navigation