When the Raspberry Pi Foundation announced the new Raspberry Pi 2, it came as a surprise to many folks. But it really should not have been a surprise. The Raspberry Pi is now 3 years old and in the life cycle of a technology product it was long overdue an update. Indeed, when the Model B+ was launched in ??? 2014, many folks were disappointed that increases in processor performance or RAM size did not happen then.

Replacing the 700MHz single core BCM???? with a 900MHz quad-core BCM??? and doubling the RAM to 1GB is a major performance update. These have been widely documented so I won’t go into details here but you no longer have to make excuses for the Raspberry Pi’s (lack of) performance because it only costs $35. With hindsight it is now clear that the hardware updates with the Model B+ paved the way for the Raspberry Pi 2.

The Raspberry Pi Foundation has tried very hard to retain as much hardware and software backwards compatibility as possible between revisions. The update between Revision 1 and Revision of the Model B saw some GPIO differences which required software updates. The update between the Model B and Model B+ was much more significant and from a software perspective it was 100% backwards compatible. But the major hardware update to the layout of components meant that some hardware no fitted. However, the update between the Model B+ and the Raspberry Pi 2 is 100% backwards compatible both with hardware and software. That is due to the earlier hardware updates of the Model B+ and the BCM??? having?????

There were some genuine surprises during the Raspberry Pi 2 launch announcement. First is the availability later in 2015 of Windows 10 for the Raspberry Pi 2… and that will be made available to the maker community for FREE through Microsoft’s Windows Developer Program for IoT (Internet of Things). You can sign up at <http://dev.windows.com/en-us/featured/raspberrypi2support>. The availability of Windows on the Raspberry Pi 2 is a game changer, for both the Raspberry Pi Foundation and for Microsoft. Rightly or wrongly any computer running Linux is deemed nerdy, techy and certainly not for the masses. But if that computer runs Windows then suddenly everything is different. Suddenly you have access to something familiar, something that will run all your favourite software… and if that computer only costs $35 then it becomes a complete no-brainer. Remember the ambitious $100 one laptop for kids initiative? The Raspberry Pi 2 is going to make that a true reality.

This brings me to the second big surprise and that is the price. Hands up who would have bought a Raspberry Pi 2 with free Windows 10 if it had cost $45? The Raspberry Pi Foundation is predicting sales in 2015 of 3 million Raspberry Pis. IMHO that is a pessimistic figure and would have been easily achieved if the price was $45. That would have provided $30m ($10 x 3m) extra funds for the Raspberry Pi Foundation to use for good causes. I was personally disappointed that the Raspberry Pi 2 name also breaks the homage to the BBC Microcomputer. With the Compute Module, plus the $20 Model A+ and $35 Model B+, the Foundation could have easily have introduce a $45 Raspberry Pi Master. Each of these has a very clear use case... Compute Module for industrial and embedded applications, Model A+ for portable and disconnected solutions, Model B+ for everything which does not require a GUI and the Raspberry Pi Master for education and home computing.

But the Foundation did not do either of these things. Instead they priced the Raspberry Pi 2 at $35 thus instantly cannibalising the sales of the Model B+. (If you want a cheap Model B+ now is the time to buy!) It’s a brave decision and both the Foundation and Broadcom should be applauded for offering such an amazing update while still keeping the price at $35.

I use my Raspberry Pi almost every day with the production of The MagPi. Today I had the opportunity to spend some time with the Raspberry Pi 2 and the performance improvement is superb.

HP Steam tablet with an Intel Atom quad core processor and 1GB RAM running a FULL Windows 8.1

With thanks to Canakit (<http://www.canakit.com>) for getting a Raspberry Pi 2 to me in Canada in an amazingly short period of time.