



# Evaluation of Windows 7 RC Build 7100

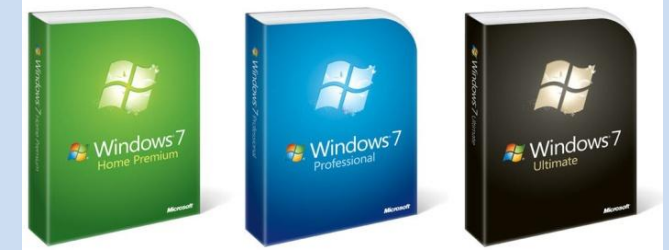
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## Performance Testing Results

Main	System	Summary	CPU Mark	2D Graphics Mark	3D Graphics Mark	Memory Mark	Disk Mark	CD Mark
<b>CPU Mark</b>			<b>Result</b>		0 Composite average 4000			
			7_1strun	3364.6 (-5.0%)				
			7_2ndrun	3372.8 (-4.8%)				
			XP_1strun	3387.7 (-4.3%)				
			XP_2ndrun	3378.5 (-4.6%)				
			XP_3rdrun	3380.4 (-4.5%)				
			This Computer	3541.1				
<b>2D Graphics Mark</b>			<b>Result</b>		0 Composite average 700			
			7_1strun	274.6 (-0.3%)				
			7_2ndrun	275.1 (-0.1%)				
			XP_1strun	601.6 (119%)				
			XP_2ndrun	586.9 (113%)				
			XP_3rdrun	596.4 (117%)				
			This Computer	275.3				
<b>3D Graphics Mark</b>			<b>Result</b>		0 Composite average 300			
			XP_1strun	242.0 (N/A)				
			XP_2ndrun	242.1 (N/A)				
			XP_3rdrun	242.0 (N/A)				
<b>Memory Mark</b>			<b>Result</b>		0 Composite average 900			
			7_1strun	771.7 (-0.6%)				
			7_2ndrun	815.7 (5.1%)				
			XP_1strun	824.4 (6.2%)				
			XP_2ndrun	826.8 (6.5%)				
			XP_3rdrun	808.1 (4.1%)				
			This Computer	776.4				
<b>Disk Mark</b>			<b>Result</b>		0 Composite average 700			
			7_1strun	606.5 (-2.5%)				
			7_2ndrun	618.8 (-0.5%)				
			XP_1strun	669.4 (7.7%)				
			XP_2ndrun	671.9 (8.1%)				
			XP_3rdrun	667.4 (7.3%)				
			This Computer	621.8				

### Problem Statement

Claims have been made about improvements that have been made on Windows 7 since the XP era and the ill-fated Vista era:

- ❖ Ease and speed of installation
- ❖ Fast start-up and shutdown time
- ❖ Enhanced performance (graphics, disk I/O, robustness etc)
- ❖ Security
- ❖ Software compatibility
- ❖ User friendliness

This assessment is being carried out to validate some of these claims

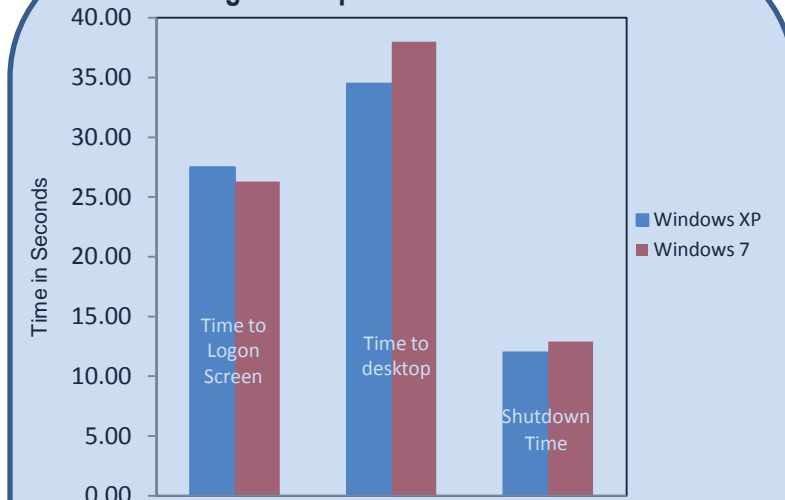
### Features Evaluated

- ❖ Security
- ❖ Virtualisation
- ❖ Software compatibility
- ❖ Performance
- ❖ Installation time for each operating system
- ❖ Logon, boot up and shutdown time

### Testing Conditions

- ❖ The same computer hardware was used for all tests
- ❖ Fresh installations of OSes
- ❖ Results obtained reflect what one gets when they install a plain OS without any tweaks or configuration changes (standard install) like most users do.
- ❖ Install time is measured from the moment the option to boot from CD/DVD was chosen until the point where the desktop reached.
- ❖ Windows 7 version used: 32bit RC Build 7100 (Ultimate)
- ❖ XP version used: 32bit SP3 (Professional)

### Average Startup and Shutdown Times



### Summary of Findings

- ❖ BitLocker Drive Encryption in Windows 7 requires special hardware (Trusted Platform Module)
- ❖ XP Mode also requires special hardware (CPU with support for hardware based virtualisation)
- ❖ BitLocker Drive Encryption and Bitlocker To Go are only available in the Ultimate and Enterprise Editions
- ❖ XP Mode is available only in the Professional, Ultimate and Enterprise Editions
- ❖ Windows 7 is incompatible with some software
- ❖ Windows XP dominated most of the benchmarks run
- ❖ Windows 7 performs better in the 3D graphics

### Conclusion

- XP** still remains a better desktop OS since:
- it has few application compatibility issues
  - works on ordinary hardware and
  - has a better performance.

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