

# Intel Extreme Tuning Utility 4.0

## 4.0.6.17 [Release] – 02/11/2013

### 1. New Features

1. Installer includes the complete Microsoft SQL Server CE redistributable. This fixes the issue where conflicting versions caused XTU to hang at launch.
2. All OC mailbox writes are now aggregated per mailbox domain and write command to avoid instabilities that may result in changing voltage modes, targets and ratio values separately.
3. Benchmarking and HWBot profile upload are available with the use of a registry key. For details, contact your XTU representative. The official launch of Haswell will result in a build update of XTU with this feature completely unlocked and available to end-users. That build is expected around the Computex '13 timeframe.

### 2. Known Issues

1. XTU exposes graphics controls when there is no tunable device available or if the graphics driver is not installed. Tuning these controls should not result in any change to the system.

## 4.0.0.16 [Beta] – 10/25/2012

### 3. New Features

1. Installation and platform support added for Haswell ULT and Crystal Well processor families.
2. Supports run time integrated graphics changes to voltage and ratio limits.
3. Support for XTU 3.2 BIOS Interface Spec rev 0.8.
4. Includes support for Windows 8 platforms.

### 4. Known Issues

1. Auto Tuning is not supported in this release of the application.
2. In the event that XTU begins to hang at launch, an attempt to install the Microsoft SQL Server CE v3.5 redistributable generally tends to fix the problem.
3. Changes to BCLK cannot be made at run time for all platforms due to installation of the wrong version of the ICC proxy service.
4. The application currently only officially supports the English OS. On some other language operating systems, the service may fail to start.

## 4.0.0.12 [Alpha] - 06/29/2012

### 5. New Features

1. Installation and platform support added for Haswell processor family.
2. Supports overclocking controls that require the use of the mailbox MSR.
3. Support for XTU 3.2 BIOS Interface Spec rev 0.51

### 6. Known Issues

1. Auto Tuning is not supported in this release of the application.

2. Run time reference clock support is not available on Shark Bay platforms.
3. Watchdog Timer support is not available on Shark Bay platforms.
4. Graphics driver does not notify applications by clearing the OC bit when a crash occurs on Windows 8.
5. Graphics run-time tuning on Haswell will only take effect if the driver is disabled and then re-enabled.
6. Integrated graphics on Haswell is tunable only on every 4<sup>th</sup> ratio.
7. Turbo ratio multipliers cannot be tuned run-time beyond their values at boot on Shark Bay.
8. Core Voltage monitor reports approximately half the value expected on Shark Bay systems.
9. Several mailbox values report incorrect or invalid values for minimum and maximum limits on early Haswell processor steppings.
10. Mailbox controls do not function correctly on lock-limited SKUs of early Haswell processor steppings.
11. Various Shark Bay platforms such as Grays Reef and Flathead Creek do not boot with SVID disabled.

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Published: October 12, 2006

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