

The Intel® Processor Diagnostic Tool Release Notes

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1 Purpose of Intel® Processor Diagnostic Tool

The purpose of the Intel® Processor Diagnostic Tool is to verify the functionality of an Intel® microprocessor. The diagnostic checks for brand identification, verifies the processor operating frequency, tests specific processor features and performs a stress test on the processor.

The diagnostic can be configured to execute in one of two modes, presence test mode or verification mode. Additionally, it can be configured to enable (run) or disable (skip) individual default configurations are used for this mode of operation.

2 IPDT Test System Requirements

Multiprocessor Systems

The Intel® Processor Diagnostic Tool is compatible with multiprocessor systems.

Motherboard & Processor

It is essential that the motherboard you use to test your processor is fully compatible with your Intel® processor. Consult your motherboard manufacturer's support to ensure the motherboard supports your processor. If you are using an Intel® Motherboard please use this utility [Intel® Processors and Boards Compatibility Tool](#)

Motherboard BIOS

It is essential that the motherboards BIOS is at the minimum BIOS revision specified to support your Intel® processor. Consult your motherboard manufacturer's support to ensure the BIOS revision is at the correct revision.

Motherboard Architecture

IPDT is only compatible with motherboards built using Intel® Architecture.

Over-Clocking

Over-Clocking should be disabled while running Intel® Processor Diagnostic Tool.

Power Management

Some power management features (e.g. [Intel SpeedStep® technology](#)) throttle or reduce the operating frequency of components within the system. These types of power management features may result in very low tested frequency results. This does not mean that the processor is operating at degraded performance levels. It means that the enabled power management feature is optimizing the efficiency of the processor, either to save power or reduce heat within the system.

We recommend you disable any power management features such as Intel SpeedStep® technology and configure your system to its optimal power management settings, when running

Intel® Processor Diagnostic Tool. For instructions on how to disable these power management features, please contact your system manufacturer.

In addition, Intel® Turbo Boost Technology 2.0 automatically allows processor cores to run faster than the rated operating frequency if they're operating below power, current, and temperature specification limits. Availability and frequency upside of Intel Turbo Boost Technology 2.0 state depends upon a number of factors including, but not limited to the following: type of workload, number of active cores, estimated current consumption, estimated power consumption, and processor temperature.

Operating Systems

The Windows® version of the Intel® Processor Diagnostic Tool is compatible with the following operating systems (Please download and install the relevant IPDT installer for your Operating System – 32Bit or 64Bit):

- Windows 10
- Windows 8.1
- Windows 8
- Windows 7 SP1
- Windows Server 2012
- Windows Server 2008 R2 (not supported on Server Core Role)
- Windows Server 2008 R2 SP1

3 Software Required

The following software is required to run IPDT in the Windows® environment and must be installed prior to installing IPDT

3.1 IPDT 32 Bit Software Requirements

- Windows® Installer 3.1 Redistributable (v2).
Click [here](#) to download or copy the following URL into the browser
<https://www.microsoft.com/en-us/download/details.aspx?id=25>
- Microsoft® .NET Framework Version 4.5 Redistributable Package (x86_x64).
Click [here](#) to download or copy the following URL into the browser
<https://www.microsoft.com/en-us/download/details.aspx?id=30653>
- Intel(R) OpenCL Runtime x86
Click here to download or copy the following URL into the browser
http://registrationcenter-download.intel.com/akdlm/irc_nas/9022/opencl_runtime_16.1.1_x86_setup.msi
- Microsoft® Visual C++ 2010 SP1 (x86) Runtime Libraries.
Click [here](#) to download or copy the following URL into the browser
<http://www.microsoft.com/download/en/details.aspx?id=8328>
- Microsoft® Visual C++ 2015 (x86) Runtime Libraries.
Click [here](#) to download or copy the following URL into the browser
<https://www.microsoft.com/en-us/download/details.aspx?id=48145>
- *If your Intel Processor supports AVX, your Operating System will also need to support AVX in order to run IPDT AVX test.
Operating System minimum requirements for running IPDT AVX test:
Microsoft Windows: supported in Windows 7 SP1 and Windows Server 2008 R2 SP1. Hotfix 2517374 available for non-SP1 version of Windows Server 2008 R2.*

3.2 IPDT 64 Bit Software Requirements

- Windows® Installer 3.1 Redistributable (v2).
Click [here](#) to download or copy the following URL into the browser
<https://www.microsoft.com/en-us/download/details.aspx?id=25>
- Microsoft® .NET Framework Version 4.5 Redistributable Package (x86_x64).
Click [here](#) to download or copy the following URL into the browser
<https://www.microsoft.com/en-us/download/details.aspx?id=30653>
- Intel(R) OpenCL Runtime x64
Click here to download or copy the following URL into the browser
http://registrationcenter-download.intel.com/akdlm/irc_nas/9022/opencl_runtime_16.1.1_x64_setup.msi
- Microsoft® Visual C++ 2010 SP1 (x86) Runtime Libraries.
Click [here](#) to download or copy the following URL into the browser
<http://www.microsoft.com/download/en/details.aspx?id=8328>
- Microsoft® Visual C++ 2010 SP1 (x64) Runtime Libraries.
Click [here](#) to download or copy the following URL into the browser
<http://www.microsoft.com/download/en/details.aspx?id=13523>
- Microsoft® Visual C++ 2015 (x86) Runtime Libraries.
Click [here](#) to download or copy the following URL into the browser
<https://www.microsoft.com/en-us/download/details.aspx?id=48145>
- Microsoft® Visual C++ 2015 (x64) Runtime Libraries.
Click [here](#) to download or copy the following URL into the browser
<https://www.microsoft.com/en-us/download/details.aspx?id=48145>

The IPDT Installer program will check for the presence of the above prerequisites on your system. If your system is connected to the internet the prerequisites will be downloaded and installed on your system.

- *If your Intel Processor supports AVX, your Operating System will also need to support AVX in order to run IPDT AVX test.
Operating System minimum requirements for running IPDT AVX test:
Microsoft Windows: supported in Window 7 SP1 and Windows Server 2008 R2 SP1. Hotfix 2517374 available for non-SP1 version of Windows Server 2008 R2.*

5 Release Notes

Full Version	IPDT Version
4.1.0.27.W	4.1.0.27

Date	Description
21-May-2018	New Release which includes <ul style="list-style-type: none">• Support for Gen 8 processors in GPUStressW module.• Support for Gen 7 and Gen 8 processors in PCH module.

6 Bug Fixes

Reference No.	Description
SA ID: SA-00140	Possible privilege escalation with installer: https://security-center.intel.com/advisory.aspx?intelid=INTELSA-00140&languageid=en-fr Fix for the following potential vulnerability: Ensure IPDT is at version 4.1.0.27 or newer

7 Known Issues

Description	Workaround
Graphics tests may display a white screen during execution	Ensure latest Graphics Drivers are installed

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