

PlexUtilities Disc Burning Application and Diagnostics

PlexUtilities can provide you with a thorough inspection of your drive and discs. Whether you are an ordinary consumer wishing to learn more about the drive or enthusiasts in search of the best burning quality, this is an advanced disc burning diagnostics tool that can best support your needs.

PlexUtilities contains 18 functions in 5 categories that follow three general themes:

["View Information"](#)

["Quality Testing"](#)

["Drive Adjustment"](#).

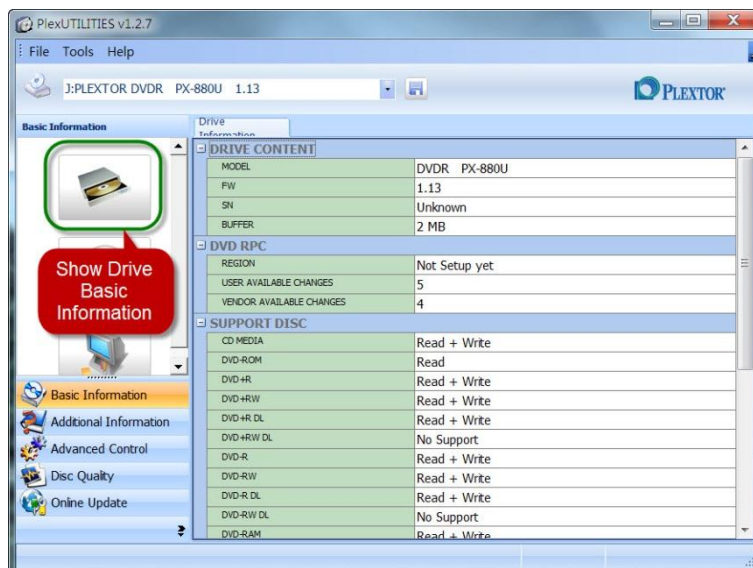
These are perfect for preparing and finalizing disc burning tasks. When properly used, PlexUtilities produces better burning quality and results.

"View Information" Before Burning

You must understand the drive and disc characteristics in order to produce a perfectly written disc. Making the right adjustments or disc selection will help prevent problems during burning. PlexUtilities can help you Analysis your drive and discs to prevent burning failure.

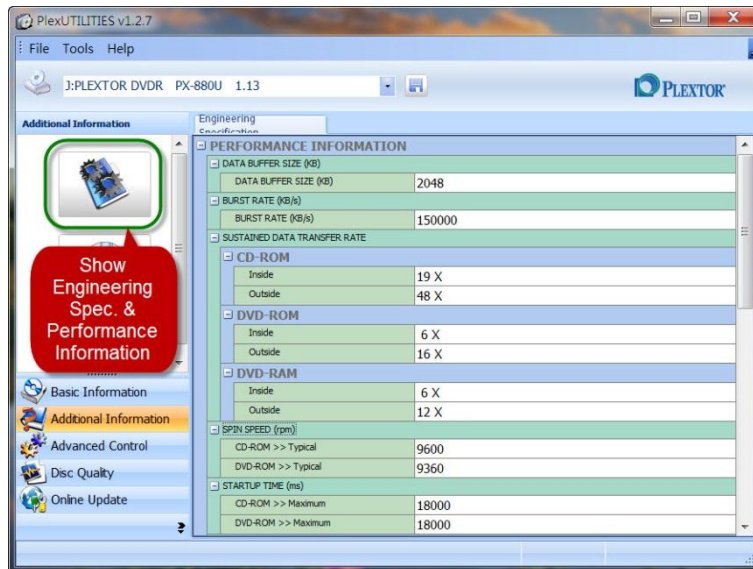
A. Basic drive information

Provides you with basic information such as the drive's writing capability and supported disc types. Knowing this information will eliminate uncertainty from the burning process and make it easier to select the right disc format and speeds. You may simply purchase the discs that match your drive's writing capability.



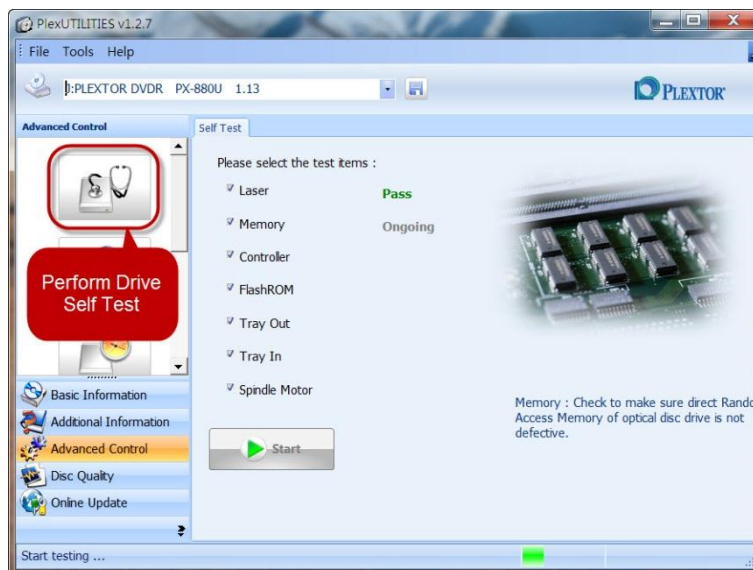
B. Advanced drive information for enthusiasts

Find out about the drive's actual hardware including data buffer size, inside/outside read speed and startup/random access time. These are closely linked to stability during burning, burning speed and everyday access speed.



C. Pre-Burning Diagnostics

Tests the 7 key hardware components in the drive (Laser, Memory, Controller, FlashROM, Tray Out, Tray In and Spindle Motor) before burning. Checking the drive's current condition before burning avoids wasting discs and time due to failed burning operations.



D. Monitor read/write head status with IOP measurement

Laser testing can check for degradation in the drive's laser head to determine the condition of the drive.



E. Disc information

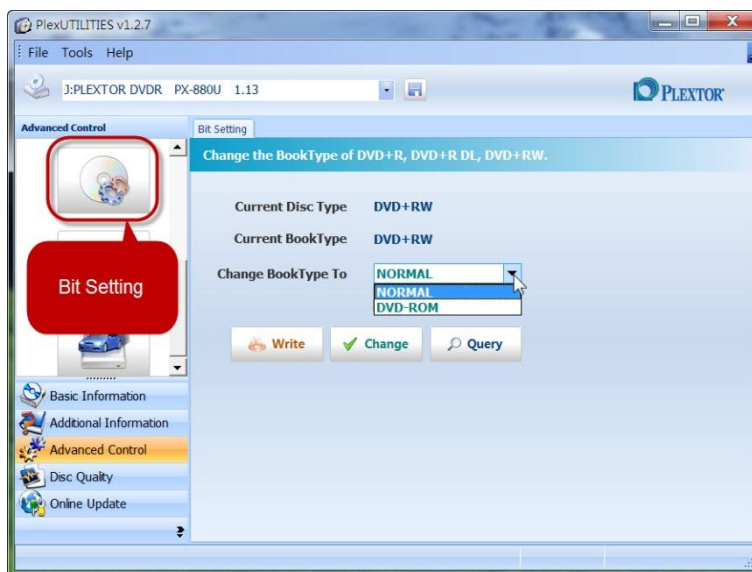
Disc quality often determines whether data is successfully written to a disc and how long they will last after burning. PlexUtilities can tell you about the Disc Type, Manufacturer, Capacity, Number of Layers and Maximum Write/Read Speed. The information will not only help you buy discs that is suitable to your drive but also ensure that they are written at the right speed for the best burning quality and durability.

The screenshot shows the PlexUTILITIES v1.2.7 interface with the 'Basic Information' tab selected. The 'Disc Information' section is expanded, showing a table of disc details. A red callout box points to the 'Show Disc Basic Information' icon in the left sidebar.

BASIC INFORMATION	
DISC TYPE	DVD-R
BOOK TYPE	DVD-R
MANUFACTURER	Sony Corporation
MEDIA ID	SONY16D1
PROTECTION SYSTEM	None
REGION	1,2,3,4,5,6,7,8
CAPACITY	4.38 GB
FREE SIZE	4.38 GB
FREE BLOCKS	2297888
NUMBER OF LAYERS	1
MAXIMUM RATE	Not Specified
LINEAR DENSITY	0.267 um/bit
TRACK DENSITY	0.74 um/track
MAXIMUM WRITE SPEED	16.0x
CURRENT WRITE SPEED	16.0x
WRITE SPEED PERFORMANCE DESCRIPTOR 1	16.0x
WRITE SPEED PERFORMANCE DESCRIPTOR 2	12.0x
WRITE SPEED PERFORMANCE DESCRIPTOR 3	8.0x
WRITE SPEED PERFORMANCE DESCRIPTOR 4	6.0x
MAXIMUM READ SPEED	16.0x

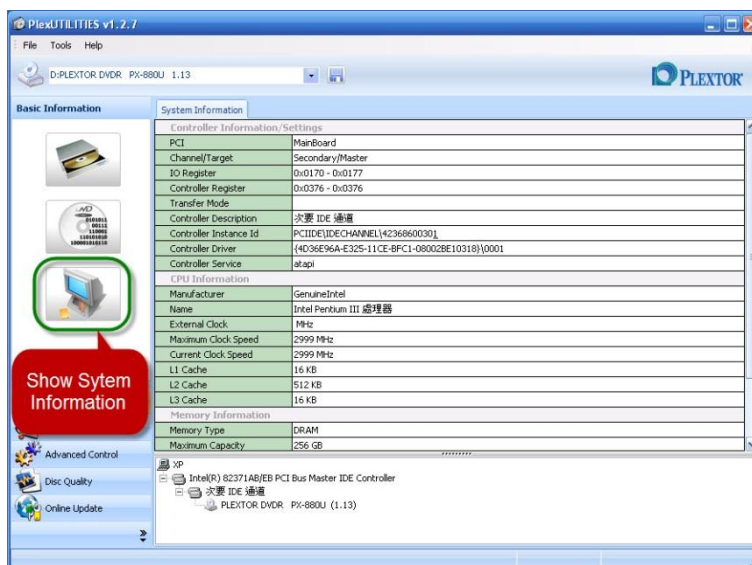
F. Improve compatibility with old DVD+R discs through parity settings

The "Parity Settings" help prevent coasters by allowing a DVD+R disc's BOOK TYPE to be changed to a more compatible format for reading and writing.



G. System Informatio

The other hardware in the computer system such as the memory, hard disk, power supply and drive bus may affect the burning process and quality as well. PlexUtilities can be used to examine the system hardware to see if it provides a good quality burning environment.



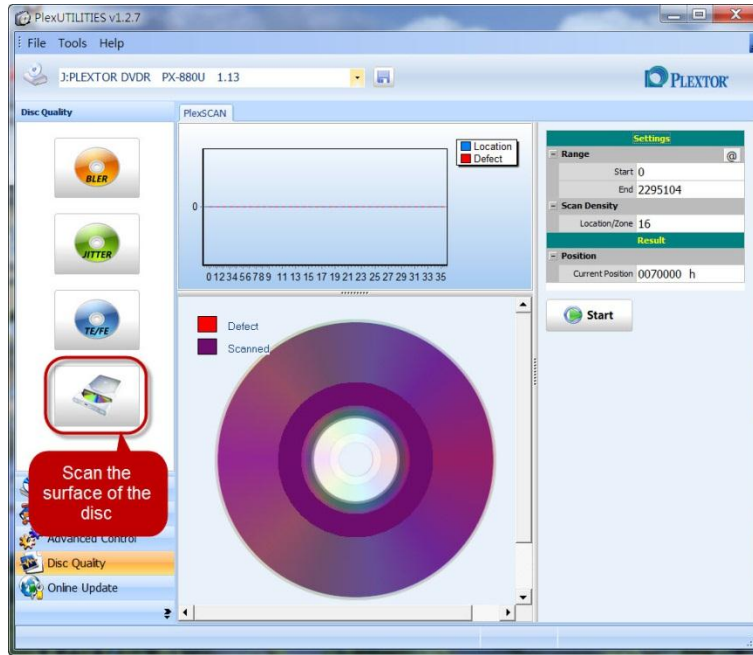
"Quality Testing" After Burning

Once a burn is complete there may be some potential problems that may not shown during the burning process. These problems will not only lead to data errors but also greatly shorten the disc and data's storage life.

PlexUtilities offers five diagnostic functions that provide the disc with a thorough checkup. They not only help ensure good disc quality but can also indicate any potential problems with the drive.

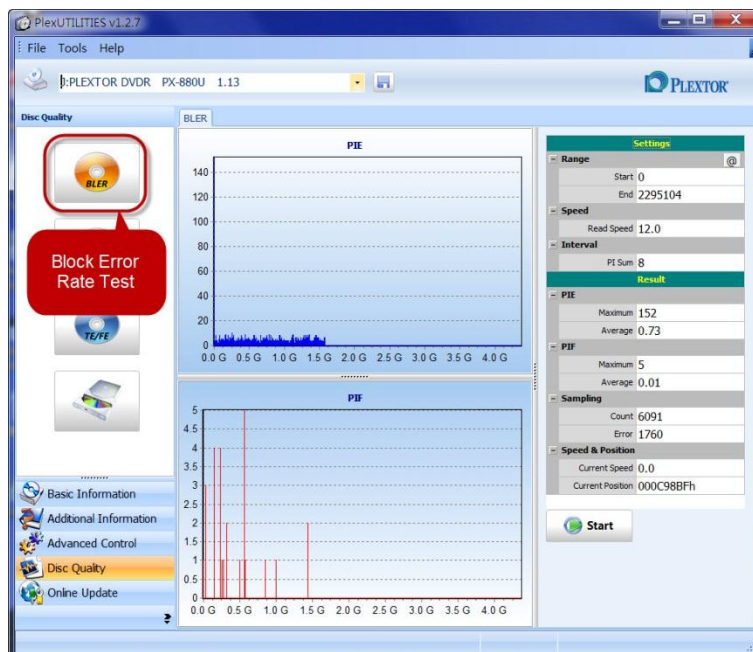
A. Optical Disc Scan with PlexSCAN

An optical scan of the disc surface can be conducted before and after burning. The scanning process can identify serious scratches on the disc's read side or dye that had become detached from the surface. These problems mean the data on the disc may already be damaged.



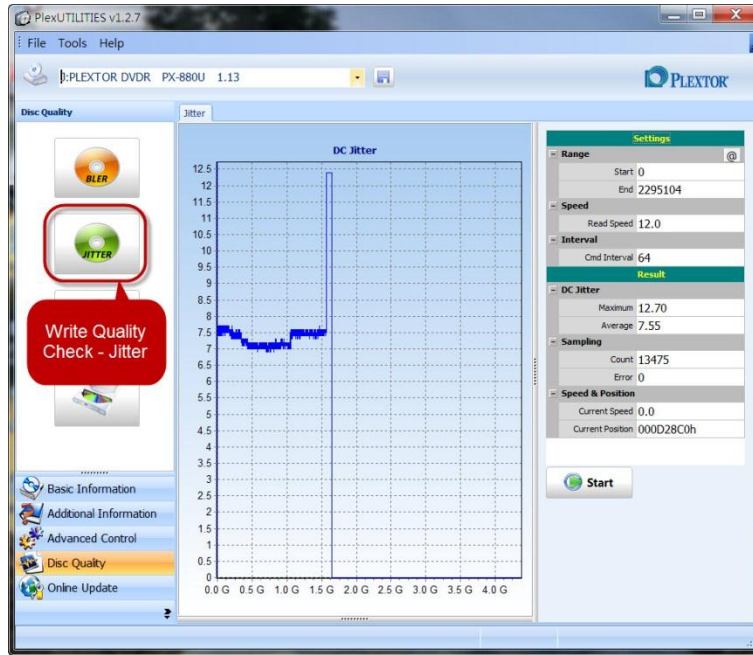
B. Check basic read/write with PIE/PIF scanning

Once a disc has been burned, quality diagnostics can be used to check the quality of the results. Error blocks on the burned disc are represented as PIE (Party Inner Errors, see top half of the attached picture) and PIF (Parity Inner Fail, see lower half of the attached picture) graphs. PIE values within 100 ~ 200 and PIF values between 8~15 means the quality is relatively stable.



C. Jitter Diagnostics

When jitter becomes very serious, it may impact access speed, error correction, data accuracy and disc quality. Jitter diagnostics can help prevent embarrassing situations such as distortions, skipping, audio de-sync or unreadable files.



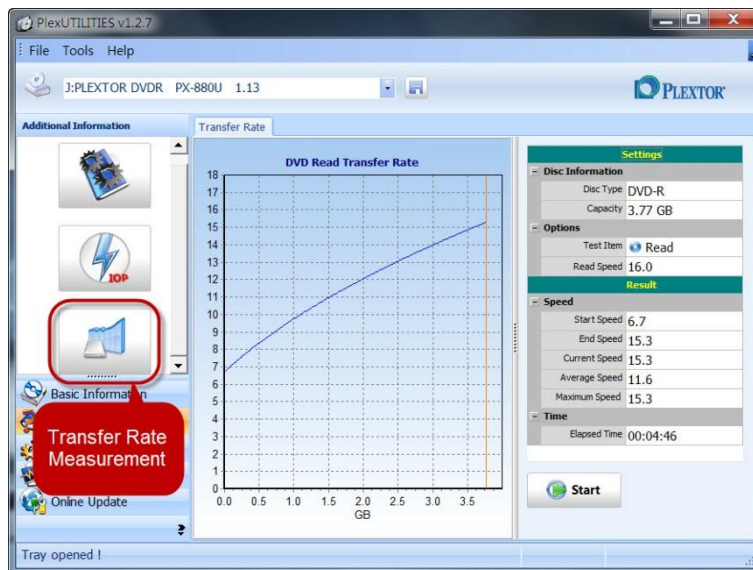
D. Professional Laser TE & Fe Diagnostics

Check the Tracking Error (TE) and Focus Error (FE) on the drive's laser head. Higher TE and FE values mean the chance of PIE/PIF errors will increase as well. When this happens, the drive may be quite old and is beginning to degrade. This diagnostic is therefore a good indicator of a drive's durability.



E. Test Drive Read/Write Speed

PlexUtilities can check the drive's read/write speed and whether it can operate at full speed. The test can also give an idea of the disc's burn quality, killing three birds with one stone.

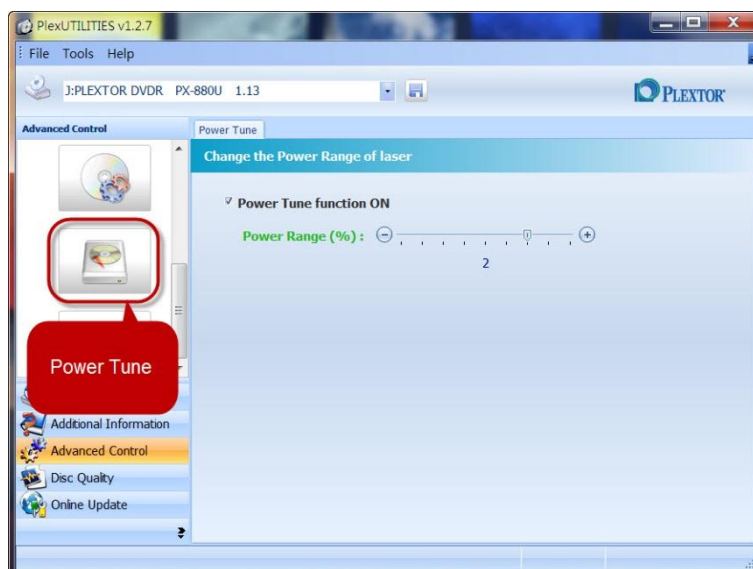


"Drive Adjustment" for Fine-Tuning

In addition to its pre-burning and post-burning diagnostics, PlexUtilities also provides six adjustments for fine-tuning your drive to improve burning quality and prevent wasting discs. PlexUtilities ensures that your drive remains optimized at all times so you can enjoy a 100% quality experience.

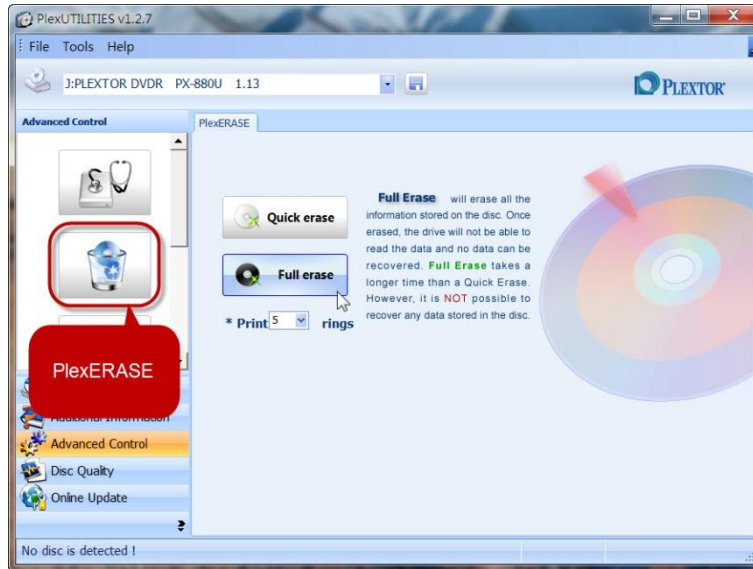
A. Laser Adjustment

Poor disc burning quality or access problems may be due to variations in the quality of the disc dye. The difference in how the disc reacts to the drive laser may impact the burning quality. PlexUtilities allows you to tweak the Power of the laser to make the disc and drive more compatible.



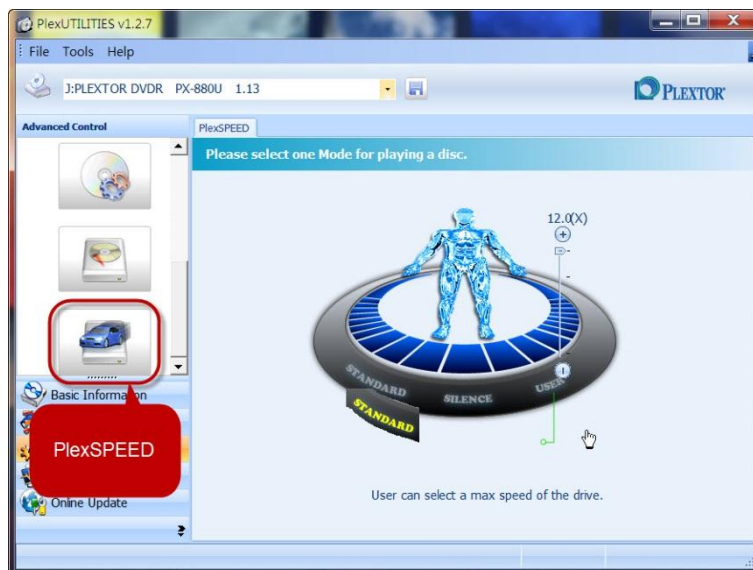
B. Securely erase disc data with PlexERASE

PlexERASE is designed to erase all file data on discs by rendering them completely unreadable. There are two modes available: Quick erase and Full erase. The data is erased to different levels so data security and environmental friendliness are both fulfilled at once!



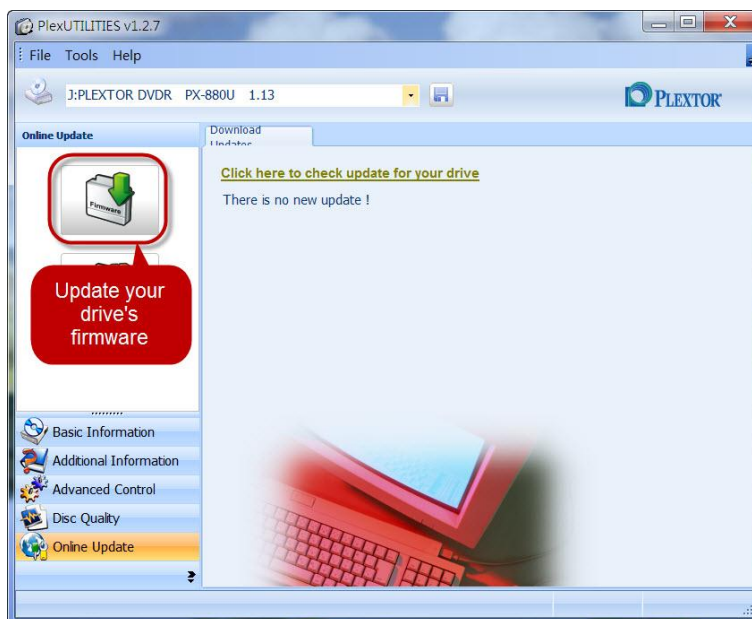
C. Quieter drive with PlexSPEED

The function can limit the maximum drive speed so noise can be reduced during operation.. There are three modes available. "Standard" mode allows the drive to run at full speed; "Silence" limits the drive to 6~8X speed while "USER" allows you to set the maximum speed by timeout interval for the drive to slightly reduce the drive's power consumption.



D. Real-time Firmware Update

PlexUtilities can be used to download new firmware that improves the burning quality and compatibility with discs of different brands.



E. PlexUtilities scheduled diagnostics and updates

PlexUtilities comes with a scheduled diagnostics and update feature that allows the operating system and drive to work more closely together. New features will be introduced over time as well. Take the latest, the most stable and the feature-rich PlexUtilities burning diagnostics tool home with you today!

