StarBurn Software
Technical Reference Series

StarBurn CD/DVD/Blu-Ray/HD-DVD Toolkit: Getting Started

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StarBurn Software
www.starburnsoftware.com

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TRADEMARKS

CHANGES

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TECHNICAL SUPPORT AND SERVICES

If you have questions about installing or using this software, check this and other documents first - you will find answers to most of your questions here or there. If you need further assistance, please contact us.

INTRODUCTION

StarBurn is an advanced CD/DVD/Blu-Ray/HD-DVD burning, grabbing and mastering software development kit for Microsoft Windows. StarBurn SDK enables everyone to add reliable, high-performance CD/DVD/Blu-Ray/HD-DVD burning capabilities to any custom application in just a few minutes. The SDK supports virtually all available burning hardware (including modern high-capacity Blu-Ray and HD-DVD devices) and provides a flexible, solid framework for your application regardless of development environment or target platform. StarBurn takes care of complex issues associated with the burning process such as handling specific optical media types, thread management, intermediate caching and non-standard device commands: allowing you to focus on application development instead of implementation details.

KEY BENEFITS

Burning Hardware: All MMC (Multi-Media Command Set) compatible CD/DVD/Blu-Ray/HD-DVD devices are supported. StarBurn deals with them in so-called "generic" mode. This means you don't need to get an updated version of our software to support a brand new burner. CD-R/RW, DVD-R/RW, DVD+R/RW, BD-R/RE, HD-DVD-R/RW and DVD-RAM media are supported, including modern high-capacity double layer DVD+R, dual layer DVD-R, Blu-Ray and HD-DVD.

Supported OS: Windows 95, Windows 98, Windows Me (Millennium Edition), Windows NT, Windows 2000, Windows XP, Windows Server 2003, Windows Vista, Windows Server 2008 R2 and Windows 7, Windows 2012 R2, Windows 8, Windows Server 2016, Windows 10 are supported. Both 32-bit and 64-bit.

Development Environments: StarBurn supports Microsoft Visual C/C++, Microsoft VB.NET and C#, Java, Borland C++ Builder and Delphi. We do provide our customers with both console and GUI code samples. So you can either trace tiny console applications source code or you can use our sophisticated GUI samples as skeletons for your own commercial applications.

Advanced Support and Customization Services: With StarBurn SDK you always get a year of FREE support and updates. You also get access to our public support forum where it's clearly visible how fast we respond, how helpful we are and how we treat our customers. Customization services are available at an additional charge to ensure your StarBurn project is a breeze.

Embedded DVD-ROM Emulator: Our SDK is the only one shipped with a redistributable DVD-ROM emulator. The DVD-ROM emulator allows you to master your data to a file on the hard disk, verify content and apply physical burning much later, even on a different machine.

Network Burning: StarBurn is one of the few optical media SDKs with network burning support available. Your application would not require the presence of physical CD/DVD/Blu-Ray/HD-DVD burning hardware installed on the same machine where the application runs. You can "map" a remote device located on

another continent (using an IP connection between client and server) and burn to the remote device with StarBurn as though it was real hardware attached to computer. This means an expensive high-capacity Blu-Ray/HD-DVD burner or DVD autoloader could be shared similar to a network printer.

Years of Experience: We have been distributing our software products exclusively through the Internet since 2003. In 2003, we released our first version of the StarBurn SDK with support for DVD recorders and UDF file system mastering. Our software development kit is currently being used by hundreds of companies (including Fortune 500) to add optical media recording capabilities to their applications. We have customers from all over the world, including North and South America, Japan, Germany, Switzerland, England, France, Italy, Scandinavia, Russia, Australia and New Zealand, with the majority of our customers located in the United States.

100% Royalty Free: There are no royalty fees for redistributing software applications written using the StarBurn SDK. You can sell an unlimited number of copies of your application without paying any additional royalty fees.

KEY FEATURES

- StarBurn SDK is redistributable as a Dynamic-Link Library (DLL), ActiveX (OCX) or static library (LIB) built-in into your application executable. We don't force our customers to use a single hard coded approach. A DLL is generally easier to maintain and updates to new StarBurn versions are trivial (only core StarBurn.dll should be replaced). An OCX is a slightly easier to program and a LIB is treated as more "secure".

- OSTA UDF compatible file system mastering (UDF 1.02, 1.50, 2.01, 2.5, 2.6). Files larger then 2 GB and with names up to 2048 characters long now could be stored on optical media. You don't need to use third-party tools to split your huge database backups or rename very long file names before burning them. These are things of the past with StarBurn SDK. UDF is also completely UNICODE compatible.

- ISO9660 file system mastering (including Joliet Unicode name extensions). The most compatible file system virtually every machine can read.

- So-called "bridge file system" (ISO9660/UDF for DVD-Video creation) mastering. StarBurn creates a bridge file system which is DVD-Video compatible. Such media could be read with both stand-alone DVD players and older Windows 95 and DOS boxes. And yes, our burning toolkit makes DVD-Video and DVD-Audio images that pass PHILIPS DVD-Video Verifier without mastering errors. This means DVD's created with the StarBurn SDK are playable in any stand-alone DVD player.

- Session import (appending already recorded CD/DVD/Blu-Ray/HD-DVD media). In this mode you can use the same media for sequential recording daily. New data would perfectly co-exist with previously recorded data. The only limitation you'd hit is physical media capacity. Ideal solution for custom backups!

- Audio content processing. StarBurn SDK can store audio tracks as WAV (uncompressed) and WMA (compressed Windows Media Audio) files. StarBurn is also capable of burning WAV and WMA/WMV/ASF/MP3/OGG files to create re-mastered Audio CDs. Please note StarBurn can handle compressed audio streams on-the-fly. This means it can burn an Audio CD

from WMA/WMV/ASF/MP3/OGG files without de-compressing them and storing an intermediate copy on your hard disk. This is MUCH faster if compared with doing everything in two steps: first decoding and then actual burning.

- Track-At-Once, Session-At-Once (CUE SHEET) and Disc-At-Once (RAW) recording modes. In Track-At-Once mode everything is handled by the drive itself. The application just passes 2048 bytes/sector streams (data) or 2352 bytes/sector streams (audio). With Disk-At-Once the application creates a whole raw virtual CD image itself and writes with 2448 (DAO96) or 2368 (DAO16) bytes/sector streams. Track-At-Once is the most compatible mode and preferred for data (the only mode to create multi-session CDs) and Disk-At-Once allows you to create gap-less Audio CDs, add CD-Text and CD+G information and some additional features. Session-At-Once is close to Disc-At-Once with the exception it does not require to generate lead-in and lead-out manually and allows programmer to select source data stream format.

- El Torito (bootable CD/DVD/Blu-Ray/HD-DVD). With this feature it's trivial to create custom recovery optical media. Use CD/DVD/Blu-Ray/HD-DVD as a very big floppy boot disk. It's even possible to create own Windows installation running directly from CD or DVD media. As an example, [BartPE](#) uses StarBurn SDK to create custom Windows PE bootable media.

- Full CD-Text support. This feature allows you to store artist/album/track names in the CD lead-in area. CD-Text capable stand-alone CD/DVD players would display this information during the play operation. Your mastered CD discs would not be nameless from today!

- Windows 95, Windows 98, Windows Me (Millennium Edition), Windows NT, Windows 2000, Windows XP, Windows Server 2003, Windows Vista, Windows Server 2008 R2 and Windows 7, Windows 2012 R2, Windows 8, Windows Server 2016, Windows 10 are supported. Both 32-bit and 64-bit.

- ASPI (Advanced SCSI Programming Interface) layer for Windows NT/2000/XP/2003/Vista/2008/7/2012/8/2016/10 takes care of supporting Serial and Parallel SCSI and ATA (ATAPI), parallel port, USB (1.x/2.0/3.0) and FireWire (IEEE 1394) devices. So when developing your own CD/DVD/Blu-Ray/HD-DVD burning application you can stick with a single binary that

would be cross-compatible between different Windows operating systems. Our ASPI layer is redistributable (no installation limitations, no royalty fees are required). If you don't care about Windows 95/98/Me any more you can stick with the SPTI or SPTD transport. If you use SPTI or SPTD you don't need the ASPI layer at all.

- Multiple CD/DVD/Blu-Ray/HD-DVD devices can be used for burning and grabbing at the same time. No artificial limitations. The only real ones are your CPU horsepower and the amount of free RAM available.

- Support for hardware buffer underrun protection schemes. BURN-Proof, JustLink, Power-Burn, SafeBurn, SeamlessLink etc will prevent your CD/DVD/Blu-Ray/HD-DVD media from being spoiled with occasional hard disk activity during burn process.

- We do support "over-burning" for 90 and 99 minute CD-R media. With our Disc-At-Once burning engine you can store as much data on a single CD as possible. This is an ideal solution for backup systems providing the lowest $/megabyte of data ratio.

- StarBurn can create Video CD (VCD) and Super Video CD (SVCD) mastering. Just point to the MPEG-1/MPEG-2 file you want to burn.

- Full software EDC/ECC error checking and correction engine implemented. Allowing you to proceed with Disc-At-Once burning and allows fast bad sectors skipping when grabbing damaged or copy-protected CD/DVD media.

- 1:1 copy of single session data CDs (99% of the titles available on the market) is supported. This includes bad sectors support (fast skipping when creating image and making them appear back on recorded media) and "weak" sector amplifying (if your hardware does not survive after crazy pattern processing).

- CSS-protected DVD-Video backups are possible. You can either store an entire DVD image as encrypted (you'll need an application such as Alcohol 120% to mount it and watch it on your PC) or you can apply automatic decryption on-the-fly. In such a case you'd be able to mount the resulting

ISO image with StarBurn built-in DVD emulator and also burn it to DVD recordable media to create a backup copy of the original movie.

- 1GB padding for DVD-Video burning modes done automatically. It's up to StarBurn SDK and not up to a particular DVD burner whether the final DVD-Video compilation is padded or not. StarBurn always creates compatible DVDs.

- StarBurn SDK comes with a redistributable set of 32-bit and 64-bit drivers making I/O operations possible without Administrator rights.

- Very small installation footprint.

- Built-in advanced logging system makes remote issue solving easier. With StarBurn SDK you don't need to fill bug report forms and write down long and painful e-mails with the list of actions you've performed to put application down. You just forward us StarBurn debug log and it's our support staff responsibility to interpret it, pinpoint the problem and either fix or workaround it.

- StarBurn can do verification of recorded CD/DVD/Blu-Ray/HD-DVD media. Disc quality would be checked and reported immediately after the burn process completes.

- StarBurn SDK comes with re-distributable SPTD (SCSI Pass-Through Direct) layer allowing your applications to have 100% safe and exclusive control over physical burning hardware. No SCSI filter driver or other burning application will result your burning process interruption and coaster finally!

SUPPORTED PLATFORMS

StarBurn SDK is compatible with 32-bit and 64-bit Microsoft Windows 95, Windows 98, Windows Me (Millennium Edition), Windows NT, Windows 2000, Windows XP, Windows Server 2003, Windows Vista, Windows Server 2008 R2, Windows 7, Windows 2012 R2, Windows 8, Windows Server 2016, Windows 10 are supported.

SYSTEM REQUIREMENTS

Minimum System Requirements:

- Windows 98
- 800 MHz Intel Pentium III class processor
- 512 MB of RAM
- 200 MB of disk space for StarBurn application data
- CD or DVD burner

Recommended System Requirements:

- Windows 8.1
- Dualcore CPU 2 x 1,5 GHz
- 4 GB of RAM
- 1 GB of disk space for StarBurn application data and log files
- Blu-Ray or HD-DVD burner

CONTACTS

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